iCon™

Product Catalog

Scalable solutions
for low I/O applications

Virginia Panel Corporation

Mass InterConnect Solutions

...creating order out of wiring chaos

iCon™ the new standard for connectors

Virginia Panel Corporation (VPC) continues to provide the highest quality and most innovative InterConnect Solutions on the market. As a global leader in the Test and Measurement industry, our goal is to meet the market's current and future needs. VPC is ISO 9001:2008 certified, assuring uncompromising quality with a commitment to continuous improvement. We work closely with our Test and Measurement Partners to develop and design products that support industry standards.

Three years ago, VPC broke ground with a revolutionary connector, iCon. The iCon product line has been developed to meet the critical and changing demands of the Test and Measurement industry. Many of iCon's features were incorporated from an in-depth study analyzing industry standards used in today's market. By incorporating the best attributes from several designs, we were able to create a connector that provides reliable maintenance-free connections exceeding 10,000 cycles. The unique iCon drive system offers an effortless method of engaging and disengaging a multitude of contacts with a half-turn handle. iCon provides ease of assembly and contact access during connector build and troubleshooting in various industry applications.

In continuing the development and enhancement of the iCon family, VPC has recently introduced the new i1, a low I/O solution that incorporates the innovative features of iCon in a single module connector. VPC continues to develop and enhance the iCon product line. i1 has been designed to provide rugged engagement capable of performing in a range of test conditions, including thermal testing. The iCon product line integrates our reliable contacts and modules into a compact format that can be used with both our standard Mass InterConnect Solutions and stand-alone applications.

VPC is continually presented with new applications that enable our engineers to develop new solutions to challenging requirements. VPC looks forward to continued success with our iCon product line.

J.P. Stowers
President

ISO 9001:2008
FM 91006

"Virginia Panel Corporation, through its people, is committed to continuous improvement, uncompromising quality, and exceptional value."

Table of contents

Applications 8
i1 13
iCon 21
iCon Modules 35
Contacts, Patchcords and Tools 47
- QuadraPaddle Signal 47
- TriPaddle Signal 50
- Mini Power 53
- Mini Coaxial 54
- Mini Pneumatic 56
- Micro Power 58
- Micro Coaxial 59
- 75 Ohm HD Coaxial 62
- 20/26 GHz Coaxial 63
- Twinaxial 64
- Thermocouple 65

iCon960 66
Technical Tips 72
Cross Reference 75
Index 79

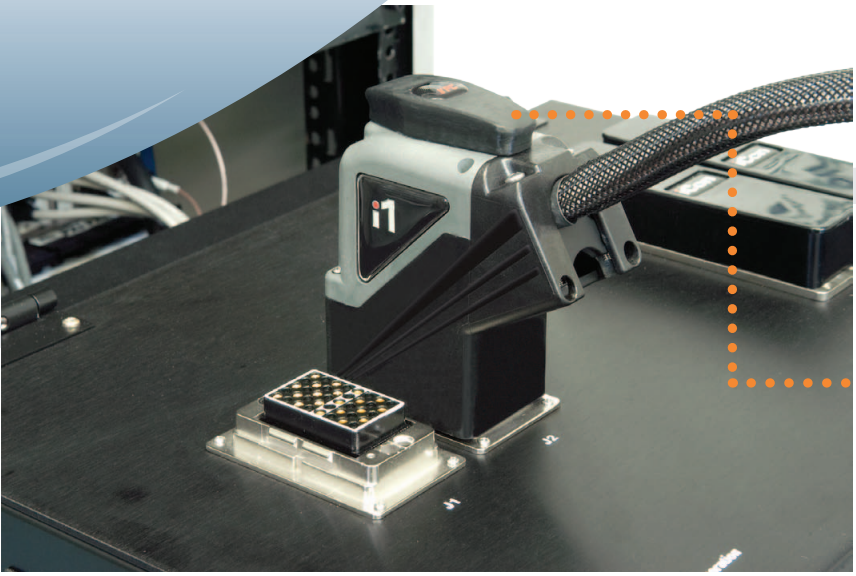
Innovation Continues

One Module Connector, i1

Virginia Panel Corporation's newest connector solution, i1, is ideal for small connector needs. Following the success of VPC's popular rack and panel connector, iCon™, i1 was developed to satisfy the need for an even smaller connector. The i1 holds a single iCon module in each connector, making it the perfect solution for low I/O applications.

Exceptional Design Features

- Half-turn quick cam mechanism
- Polarizing feature with optional keying for proper alignment
- 30 degree U-shaped cable clamp for strain relief
- Optional EMI shielding to protect signal integrity with VPC's "mate first, break last" feature
- Removable backshell and engaging mechanism for easy wire access

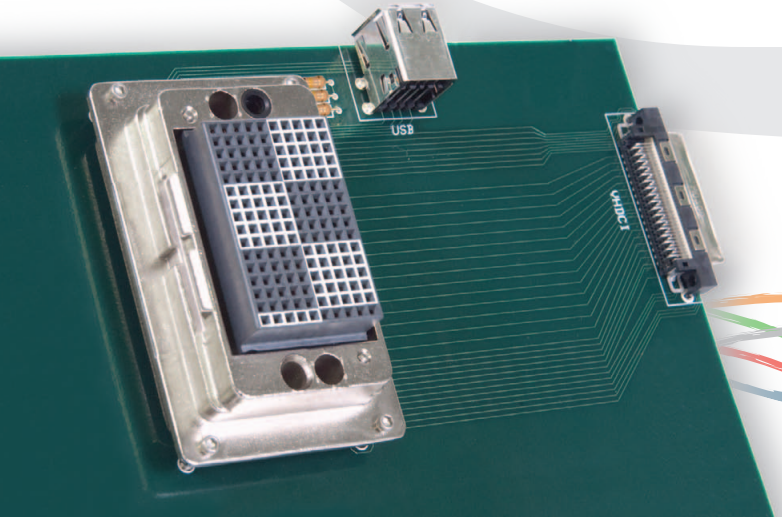


Unique Engagement

- Half-turn quick cam mechanism
- Spring locking tabs for even engagement
- Keying and guide pins ensure proper alignment

Rugged Connector

- Engagement mechanism engineered for 10,000 cycles
- Durable - will withstand drop and vibration test conditions
- Withstands thermal testing temperatures from -55°C to 105°C



Variety of Options

- Accepts all iCon modules
- Hybrid modules allow I/O options including: signal, power, coax, thermocouple
- PCB-mountable
- Visit vpc.com/wire to explore our wiring options

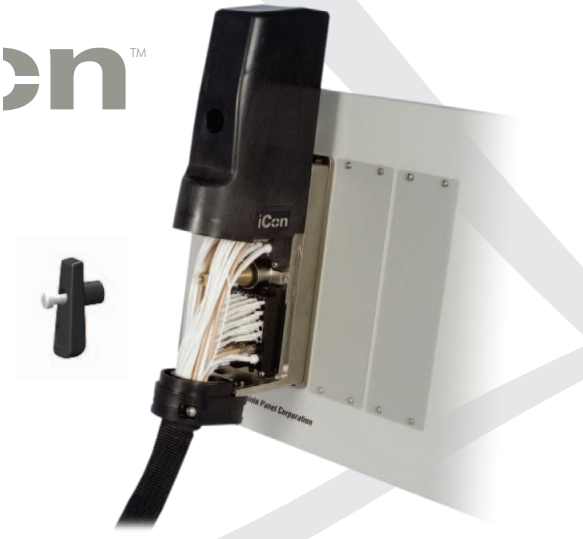
Versatility & High Performance

iCon, iConEMI, and iCon960 deliver

Engineered for Test & Measurement

- Rugged engagement mechanism designed for 10,000 cycles
- Mate up to 320 signal contacts using QuadraPaddle™ technology
- Small width and inboard handle increases side-to-side stackability
- Visit vpc.com/wire to explore our wiring options

iCon™



Convenient Rack & Panel Connector

- Slide-off cover allows access to probe points while engaged
- Removable U-shaped cable clamp makes it easy to reconfigure wired modules
- Fail-safe features include offset guide pins, recessed ITA (interchangeable test adapter) contacts and keying pins

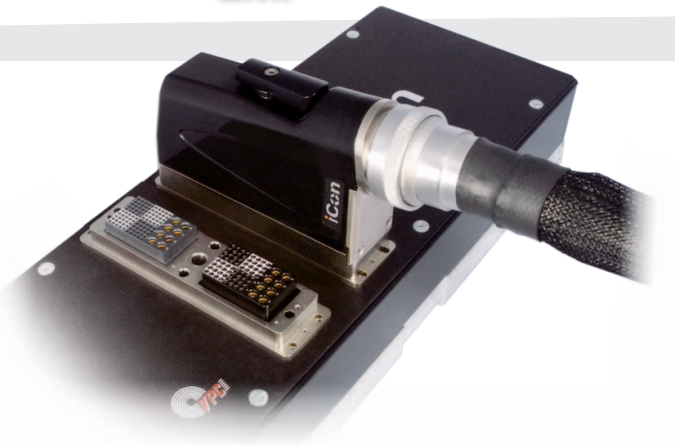
Innovative & Practical Module Features

- PCB mountable receiver
- Standard modules allow a mix of I/O
- Captive hardware in modules guarantees screw will not be lost
- Rear-mount modules allow for easy installation of pre-wired cable assemblies
- Modules available in coax, power, signal and thermocouple—other module types available upon request

iCon EMI

EMI Protection Maximizes Shielding Effectiveness

- "Mate first, break last" feature completes the earth-ground circuit
- Earth ground terminal prevents shock and injury
- EMI-shielding minimizes unwanted noise and maintains signal integrity



iCon 960

960 Signal Contacts Meets High I/O Needs

- Provides 960 signal contacts for both PCB and discrete wiring using QuadraPaddle™ technology
- Two 480 signal modules included—other module types available upon request
- Half-turn quick cam allows easy, precise engagement of receiver and ITA

Versatility Creates Solutions for Varied Industries

- Ideal for scientific data acquisition applications
- Simplifies wire connections for the entertainment industry
- Meets specialized testing requirements in the automotive industry
- Proven durability in environmental chambers

Applications

Virginia Panel Corporation continues to develop new products that are meeting the various requirements demanded by the Test and Measurement industry. VPC is a leader in developing a total InterConnect solution in a modular and scalable format. As the world leader in test and measurement InterConnects, VPC seeks to find solutions that provide the most economical method of organizing your connections. VPC's newest solution, iCon, provides rugged engagement in a compact device. iCon allows a range of I/O options, including signal, power, and coax. Its half-turn quick cam enables easy engagement and stackability. The U-shaped cable clamp allows modules to be pre-wired before assembly. The iCon is a global solution; it is being integrated into test systems througout the world. It provides cable management; multiple connections can be replaced with a single iCon. The iCon provides peace of mind through versatility, convenience, and durability. Applications range from the Aerospace industry testing in-flight entertainment systems to the Semi-Conductor industry testing lasers.

VPC welcomes all Application articles and thanks those that have and will allow VPC to highlight today's test technology. Visit vpc.com for a complete listing.

In-Flight Entertainment Systems • iCon and G6 Solution

A world leader in commercial airline in-flight entertainment systems, has created a test system for a major aviation manufacturer. The **iCon** is currently being used to test in-flight entertainment systems. The unit under test (UUT) is attached to a fixture wired from the iCon receiver to multiple I/O, Ethernet, and power connectors. The test rack containing the UUT fixture is located in a thermal and vibration cycle test chamber. The rack can hold up to eight UUTs. The cable assembly from the test equipment contains four iCon interchangeable test adapter (ITA) connectors, one G6 with a power cord, and multiple Ethernet cables. This robust configuration provides the customer with repeatability and reliability during the harsh test environment along with 10,000 guaranteed mating cycles.

Applications

Robins Air Force Base • iCon and 9050 L-Shaped Enclosure Solution

Test engineers at Robins Air Force Base have used Virginia Panel Corporation's **iCon** in their Versatile Depot Automatic Test Station—Digital Analog version 2 (VDATS DA-2). The application in which the iCon connector is used is to automatically test avionics circuit cards for the F15 fighter APG-63 system.

One of the greatest challenges of the design for the interface test adaptor (ITA) was to find the ideal connector for the unit under test. The ITA requires 308 electrical connections. The plan called for the use of 50 Ohm coaxial wire utilizing wire wrap, but the test engineers also wanted the option to use crimp technology if needed. Ease and speed of installation and removal was a high priority, as technicians would need to engage and disengage the connecting assembly frequently.

The test engineers chose Virginia Panel's **iCon** connector due to its extreme versatility; the connector offers a wide range of pin configuration and termination types. **iCon's** low insertion force and simple secure locking mechanism makes it one of the simplest connectors for technicians to install and remove. The project team also found VPC's support beneficial. During manufacturing, the project schedule began to slip. The project group turned to VPC to pre-wire their **iCon**, which enabled them to get back on schedule.

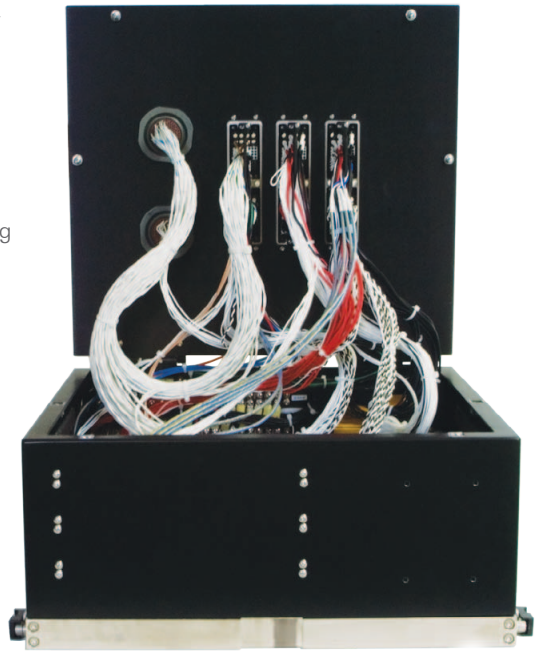
http://www.robins.af.mil/

Applications

Military Test System • iCon and Wire+ Solution

VPC reviewed an application to retrofit existing fixtures for a two tier 50 module-based military test system. The existing system had 15 circular connectors with cabling connecting the fixture to the LRU (signal and power pins).

VPC's engineers developed a fully wired fixture with three **iCon** connectors to replace all but two of the circular connectors, reducing the disconnect/ reconnect time to one half-turn for each iCon. The costs were reduced by 50 percent over the established circular connector solution. VPC provided everything from the ITA frame to the circular connectors on the LRUs.



Environmental Chamber Testing • iCon with Extended ITA Handle

A company developing environmental chamber testing fixtures for a cell phone manufacturer worked with VPC to develop a revolutionary environmental test fixture. Using the **iCon's** innovative engagement mechanism, the developers built a fixture that is 500mm (18") long. It can test up to five cell phones simultaneously and can withstand temperatures from -40 degrees C to 70 degrees C, as well as humidity.

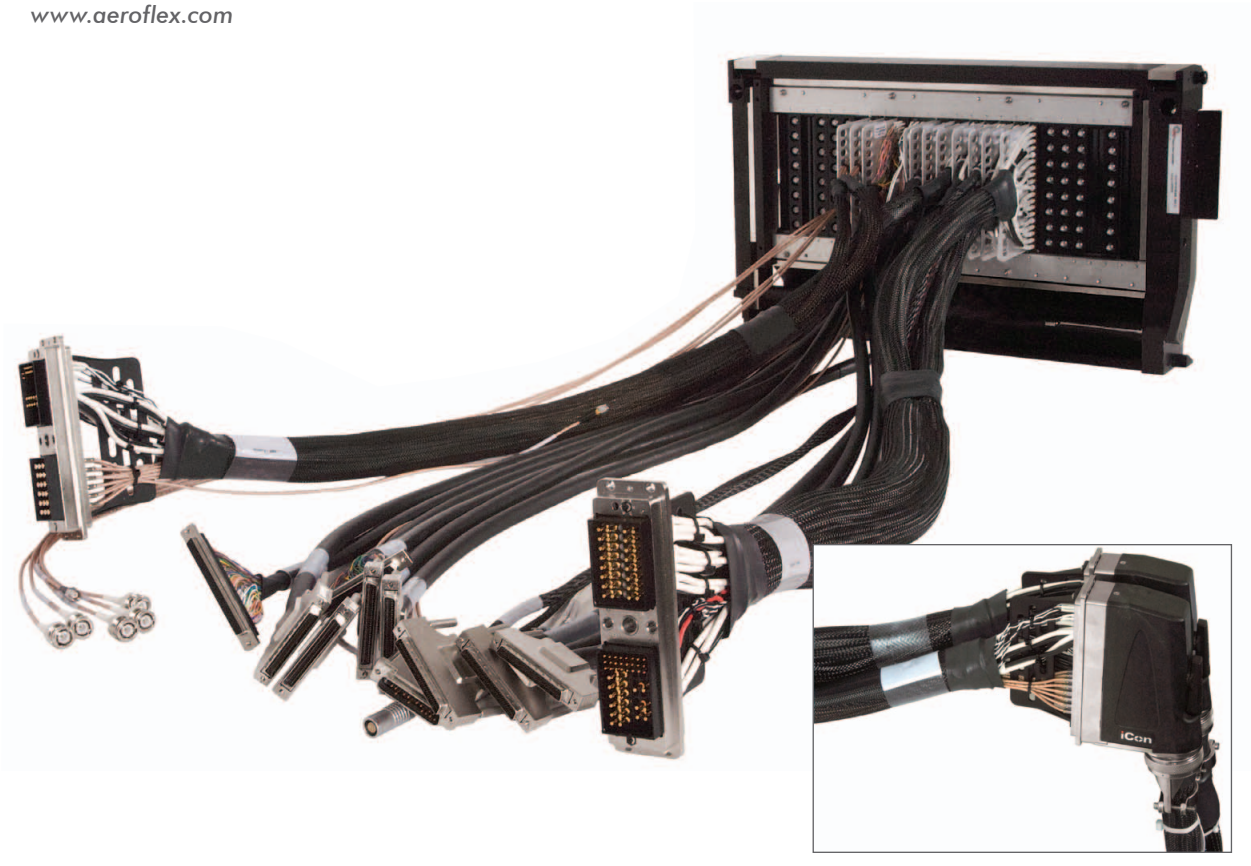
Applications

Aeroflex • iConEMI and 9025

Aeroflex High Speed Test Solutions, in Powell, OH, produces synthetic high speed test and measurement systems for RF and microwave applications. Aeroflex recently integrated VPC's **iConEMI** and 9025 on a new SMART^E 5000 series RF tester for a military customer. The electronic equipment requires two 19" rack bays. VPC's 9025 serves as the main interface for product testing; the **iConEMI's** are used to interface hundreds of signals between the two rack bays via the 9025. VPC built the custom cable assemblies to broker these signals.

Due to the high current moving from the secondary rack into the main rack through the 9025, Aeroflex engineers opted to use a special version of the **iConEMI**. VPC and Aeroflex engineers worked together to reverse the **iConEMI** ITA and receiver modules, which switches the orientation of the contacts. As a result, the flow of high current signals now stops at the connector containing recessed female contacts. This reduces the chance of electrical shock from exposed pins.

www.aeroflex.com



Applications

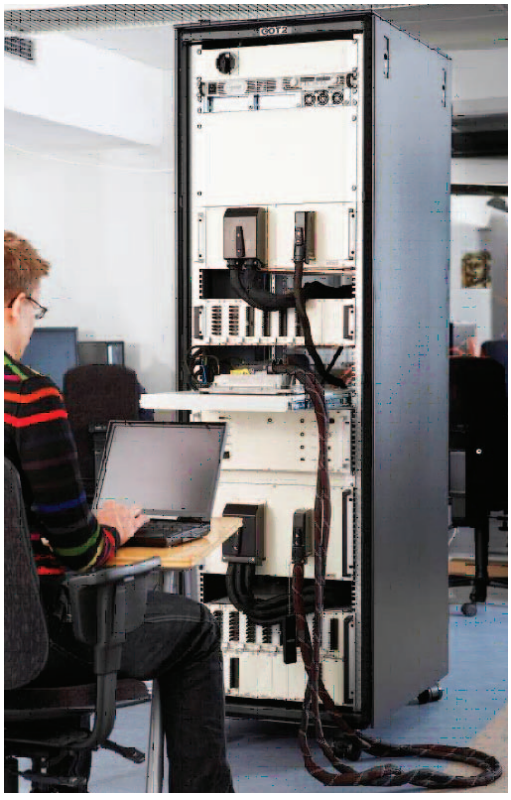
Prevas • iCon and iCon960 Solution

Prevas is the Nordic design house for intelligent products, located in Sweden, Norway and Denmark. Prevas designs and manufactures complete test solutions.

Prevas designs and builds advanced test systems, such as Hardware-In-the-Loop (HIL) systems. This technique is used to develop and test real-time embedded electronic systems used in the automotive industry. The shown Xmove application uses interchangeable interface boxes that combine general I/O, signal conditioning and loads with programmable fault injection.

To provide high flexibility combined with a high reliability, Prevas chose the VPC **iCon** and **iCon960** connectors to connect these interchangeable boxes to their test system.

www.prevas.com/tsd



VI Technology • iConEMI

VI Technology uses the Virginia Panel **iConEMI** connector in its Multimedia Test System (MMTS). The MMTS is a fully-integrated measurement system that significantly reduces test time for multimedia-capable devices such as DVD players, mobile devices, computers, and video game consoles. The MMTS is designed to be an all-in-one system that eliminates the need for stand-alone measurement devices.

The MMTS delivers all the measurement hardware and software necessary for testing the most common video and audio signals and digital protocols, and can efficiently test up to four multimedia devices in parallel, using VPC's **iConEMI**, maximizing the testing throughput without sacrificing the quality or the speed of measurements.

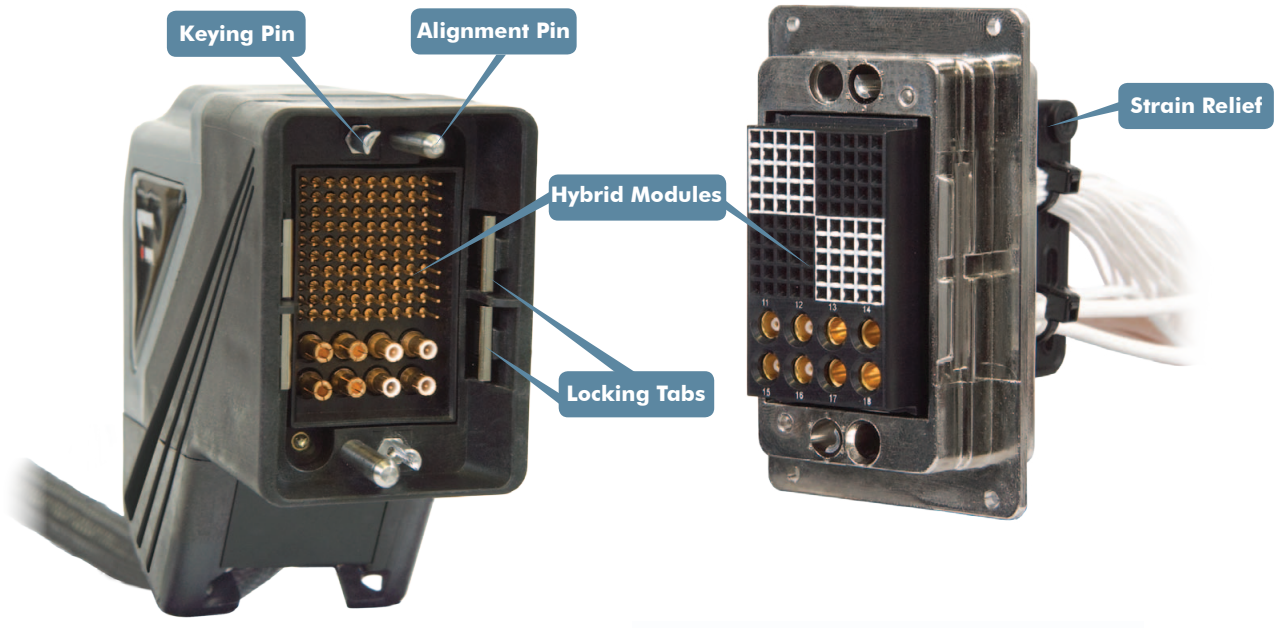
VI Technology engineers chose Virginia Panel's **iConEMI** connector for the Electro-Magnetic Interference (EMI) protection it provides with its earth-ground terminal, VPC's "Mate First, Break Last" feature.

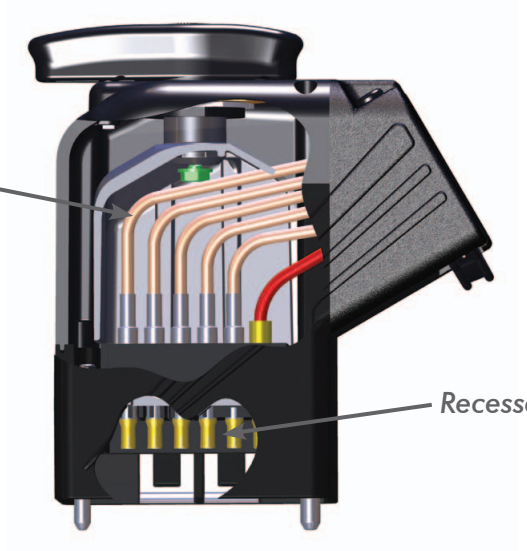
www.vi-tech.com

One Module iCon Connector • i1

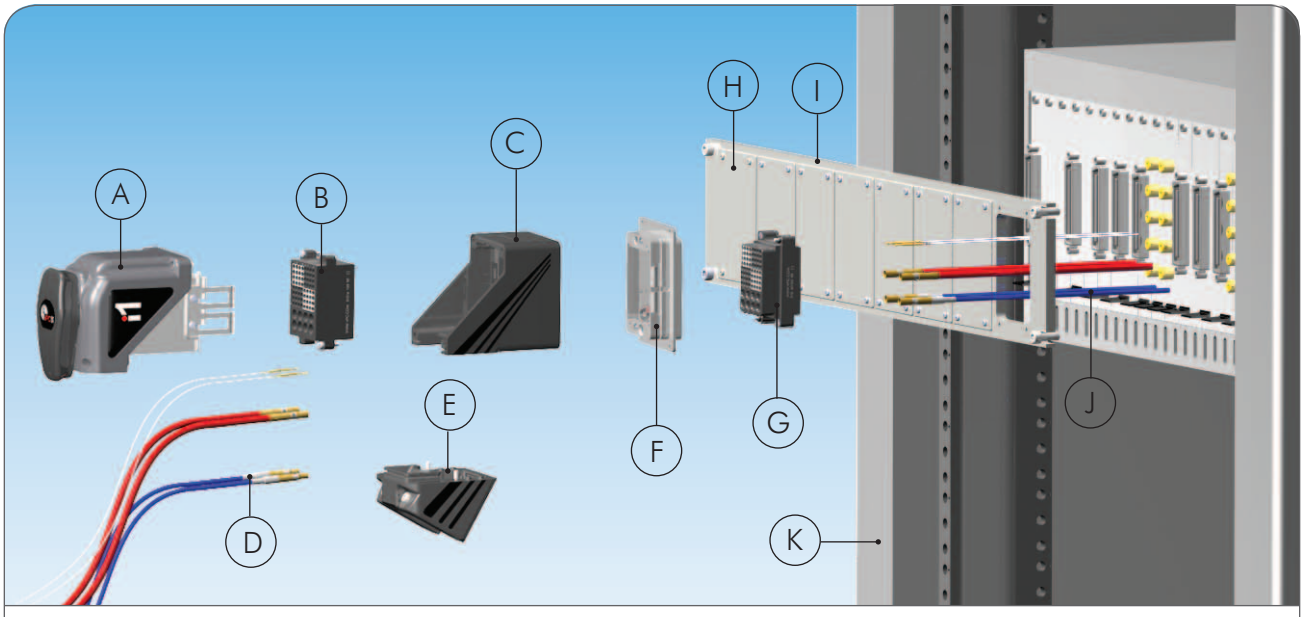
i1 is ideal for small connector needs. Following the success of VPC's popular rack and panel connector, iCon™, i1 was developed to satisfy the need for an even smaller connector. The i1 holds a single iCon module in each connector, making it the perfect solution for low I/O applications.

Innovative Engagement Mechanism





For more information, visit vpc.com/i1



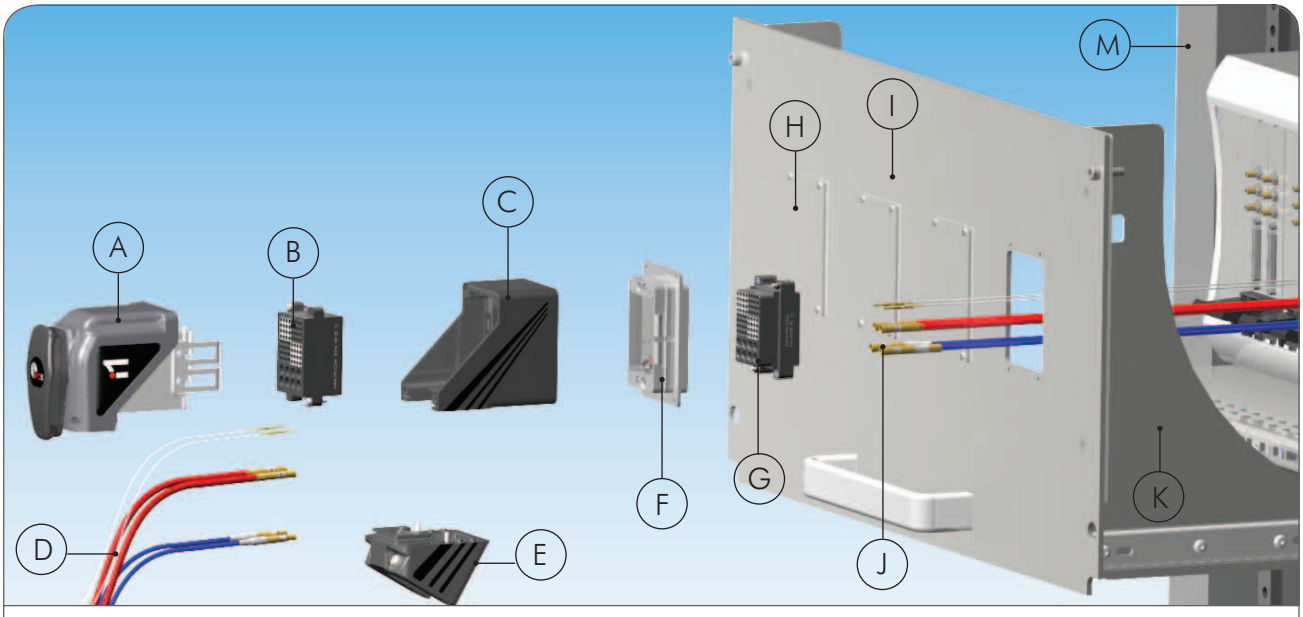
A. ITA Backshell and Engaging Mechanism
B. ITA Module
C. ITA Frame
D. ITA Patchcords
E. ITA Cable Clamp
F. Receiver Frame
G. Receiver Module
H. Cover Plate
I. Mounting Frame
J. Receiver Patchcords
K. Rack With Instruments

Part #	Description
RECEIVER	
310 128 101	Receiver, i1 (F)
ITA	
410 128 101	ITA, i1 (A)(C)(E)
410 128 102	ITA, i1, EMI Shielded
ACCESSORIES	
310 113 461	Keying Pin Kit, iCon/i1, Receiver and ITA
310 113 524	Replacement Protective Cover, i1, Receiver
310 113 531	Strain Relief Plate, i1, Receiver
310 113 533	Backshell, i1, Receiver
410 112 864	Replacement Protective Cover, i1, ITA
310 113 517	Fixed Mounting Frame, i1 2U, 8 Positions (I)
310 113 546	Cover Plate, i1 for Mounting Frame Cutouts, Painted Gray (H)
MODULES	

For ITA and Receiver Modules (includes (B)(G)) refer to pages 35 through 46.

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

For more information, visit vpc.com/i1



A. ITA Backshell and Engaging Mechanism
B. ITA Module
C. ITA Frame
D. ITA Patchcords
E. ITA Cable Clamp
F. Receiver Frame
G. Receiver Module
H. Cover Plate
I. Mounting Plate with Slide Mount Kit
J. Receiver Patchcords
K. Slide Kit
L. Instrument Bracket
M. Rack with Instruments

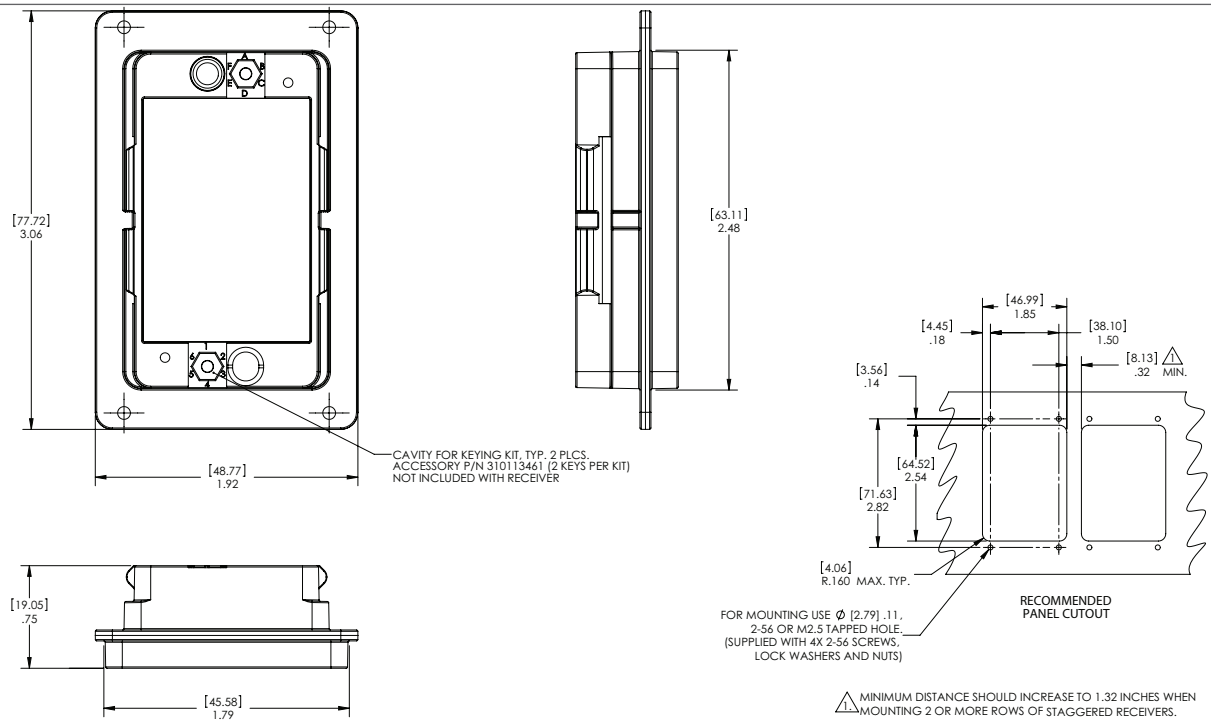
Part #	Description
RECEIVER	
310 128 101	Receiver, i1 (F)
ITA	
410 128 101	ITA, i1 (A)(C)(E)
410 128 102	ITA, i1, EMI Shielded
ACCESSORIES	
310 113 461	Keying Pin Kit, iCon/i1, Receiver and ITA
310 113 524	Replacement Protective Cover, i1, Receiver
310 113 531	Strain Relief Plate, i1, Receiver
310 113 533	Backshell, i1, Receiver
410 112 864	Replacement Protective Cover, i1, ITA
310 113 546	Cover Plate, i1 for Mounting Frame Cutouts, Painted Gray (H)
310 113 547	Mounting Plate, i1 6U, 4 Positions, with Slide Mounting Kit (slide kit required), (I) includes instrument bracket (L)
SLIDE KITS (K)	
310 113 527	28" Slide Kit, Fits 28"-30" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
310 113 528	30" Slide Kit, Fits 30"-32" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
310 113 529	36" Slide Kit, Fits 34"-38" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
MODULES	

For ITA and Receiver Modules (includes (B)(G)) refer to pages 35 through 46.

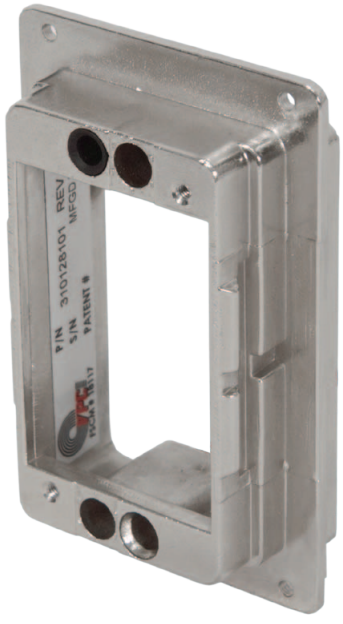
For more information, visit vpc.com/i1

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

i1 Receiver



➤ Receiver, i1 • **Part # 310 128 101**

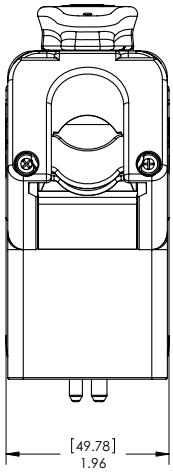


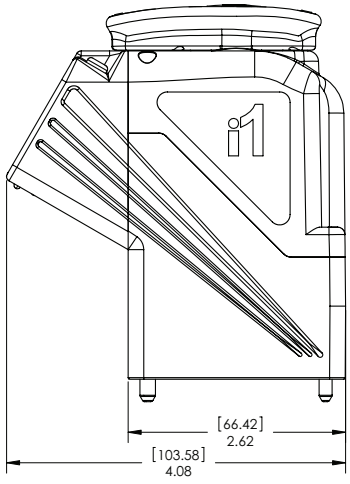
Receiver Specifications

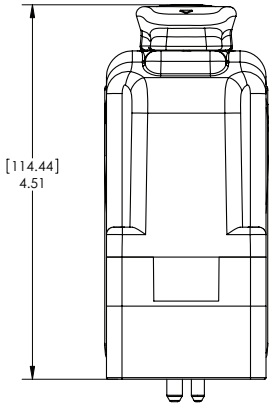
Weight	0.10 lbs [.05 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware Material	Stainless Steel Alloy
Protective Cover Material	Low Density Polyethylene
Available Module Positions	1
Cycle Life	10,000 cycles
Temperature	-55° C to 105° C

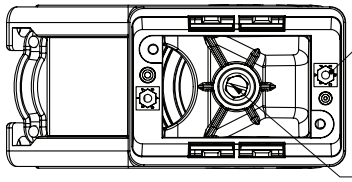
i1 accepts a single iCon module and allows a variety of signal, power, coaxial and thermocouple connections. A protective cover is included with the receiver. Other accessories, such as keying pin kits and strain relief, are available.

i1 ITA









ITA, i1 • **Part # 410 128 101**

ITA Specifications

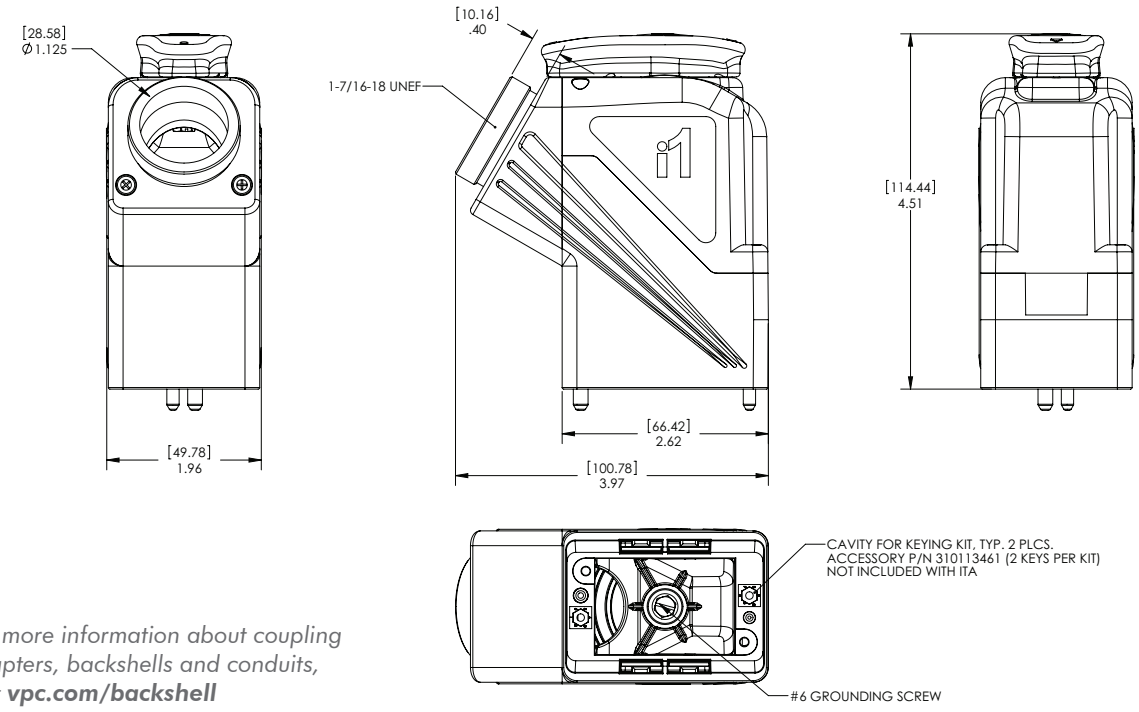
Weight	0.55 lbs [.25 Kg] without protective cover
Frame Material and Clamp Housing	Glass Reinforced Thermoplastic
Hardware Material	Stainless Steel
Latches	Nickel-Plated Berillium Copper
Backshell	Glass Reinforced Thermoplastic
Cable Clamp Material	Powder Coated Aluminum
Available Module Positions	1
Cycle Life	10,000 cycles
Temperature	-55° C to 105° C

TECH TIP

The U-shaped cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation please see our Tech Tip on page 72.

The i1 ITA's small width and inboard handle increase the side to side stackability. The U-shaped cable clamp allows modules to be pre-wired before assembly and can hold cable bundles up to 1.07" diameter. The removable cover allows easy access to wiring for maintenance and probing. Protective Cover included.

i1EMI ITA



For more information about coupling adapters, backshells and conduits, visit ***vpc.com/backshell***

➤ ITA, i1, EMI Shielded • **Part # 410 128 102**

ITA Specifications

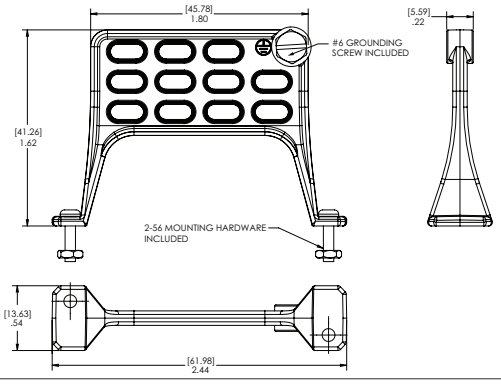
Weight	0.55 lbs [.25 Kg] without protective cover
Frame Material and Clamp Housing	Stainless Steel Filled Thermoplastic
Hardware Material	Stainless Steel
Latches	Nickel-Plated Berillium Copper
Backshell	Stainless Steel Filled Thermoplastic
Protective Cover Material	Low Density Polyethylene
Available Module Positions	1
Cycle Life	10,000 cycles
Temperature	-55° C to 105° C

TECH TIP

For the equation regarding cable bundle size, please see our Tech Tip on page 72.

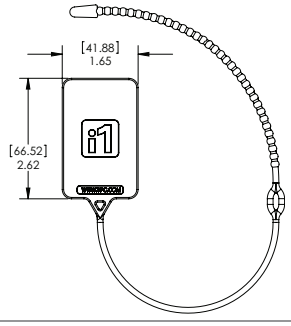
The i1EMI has many of the standard features of the i1, in addition to Electro-Magnetic Interference protection. The EMI shielding effect on the i1EMI ITA is provided by the stainless steel fibers in the plastic shell and threaded metal coupling adapter.

i1 Accessories



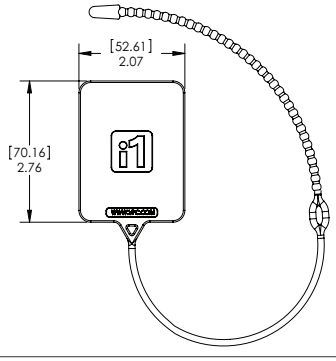
The strain relief plate attaches to the wiring side of the i1 receiver and can be secured before receiver installation. The strain relief plate is made of aluminum and is black powder coated. It includes 4 wire ties and an earth grounding screw.

➤ Strain Relief Plate, i1, Receiver • **Part # 310 113 531**



The receiver protective cover is designed to protect your modules and contacts while the test system is not in use. A protective cover is included with the i1 receiver. The adjustable lanyard enables attachment to the cable bundle and can be permanently removed if desired.

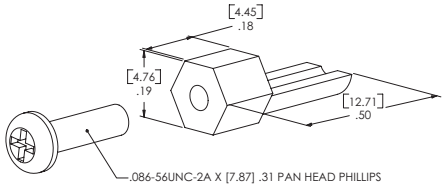
➤ Replacement Protective Cover, i1, Receiver • **Part # 310 113 524**



The ITA protective cover is designed to protect your modules and contacts while the test system is not in use. A protective cover is included with the i1 ITA. The adjustable lanyard enables attachment to the cable bundle and can be permanently removed if desired.

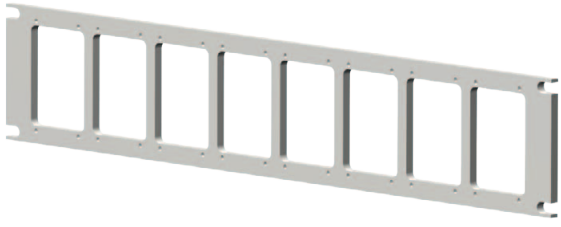
➤ Replacement Protective Cover, i1, ITA • **Part # 410 112 864**

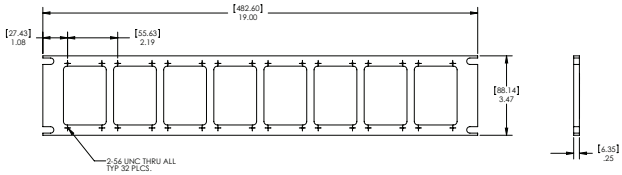
i1 Accessories



The i1 keying pin kit includes 1 set of 2 hex keys. One set will allow 6 different options and 2 sets can provide 36 different keying options. The keying kit provides a way to isolate your connectors to prevent operational mismatch.

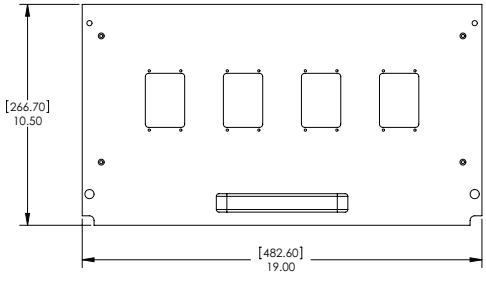
➤ Keying Pin Kit, iCon/i1, Receiver and ITA • **Part # 310 113 461**

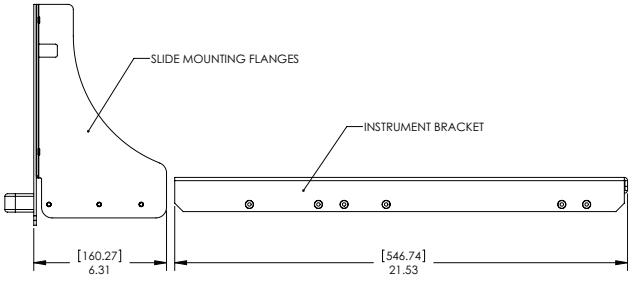


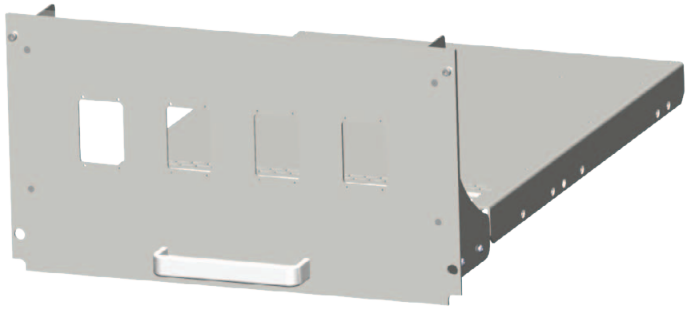


The 2U Fixed Mounting Frame mounts to standard 19″ racks. The 8 cutouts are spaced evenly across the panel. i1 cover plate sold separately (310 113 546).

➤ Fixed Mounting Frame, i1, 2U, 8 Positions • **Part # 310 113 517**







The 6U Slide-Mounted Plate mounts to standard 19″ racks and slides open to allow access to wiring between the instruments and VPC i1 receivers. The 4 cutouts are spaced evenly across the panel. i1 cover plate sold separately (310 113 546). This mounting plate is designed to work with a slide kit and includes flanges and an instrument bracket. A slide kit is required for use. *Note: See page 15 for a list of available slide kits.*

➤ Slide Mounting Kit • **Part # 310 113 547**

Versatile Rack & Panel Connector • iCon

iCon is a fail-safe rack and panel connector specifically designed for the Test & Measurement industry. The unique engagement mechanism contains built-in lubrication and spring-loaded locking tabs that guarantee a reliable connection test after test. The iCon receiver is designed to be PCB compatible.

Innovative Engagement Mechanism

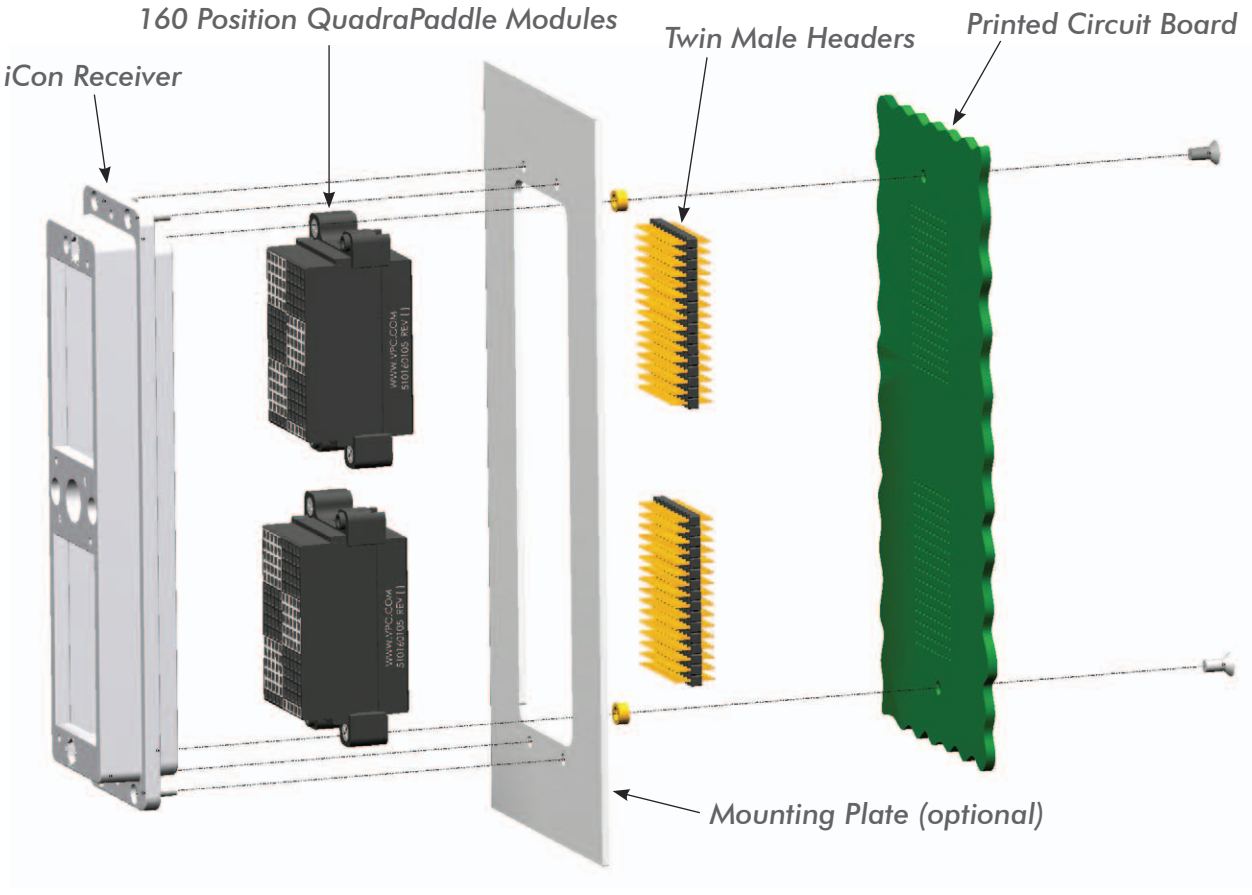
iCon™

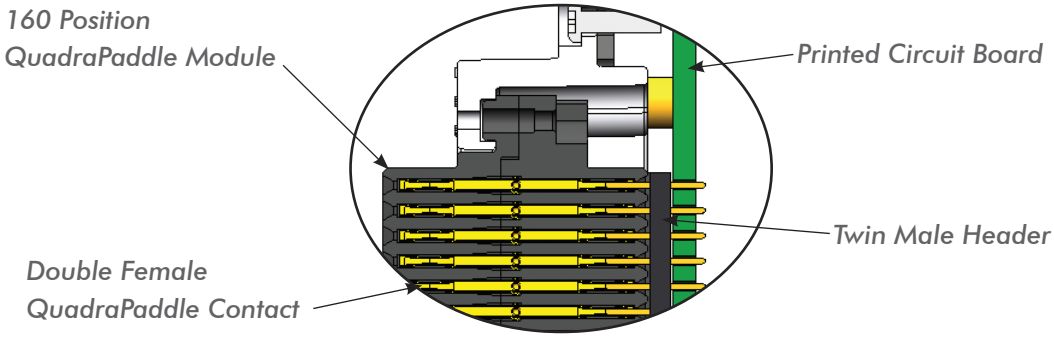
For more information, visit vpc.com/iCon

PCB-Mountable iCon Receiver

The iCon Receiver offers wire to board connections in multiple configurations. Using twin female QuadraPaddle contacts, the iCon Receiver can be connected directly to male headers on a PCB. VPC's adapter pins can also be used to connect directly to female headers or ribbon cable connectors.

Printed Circuit Board Testing Options





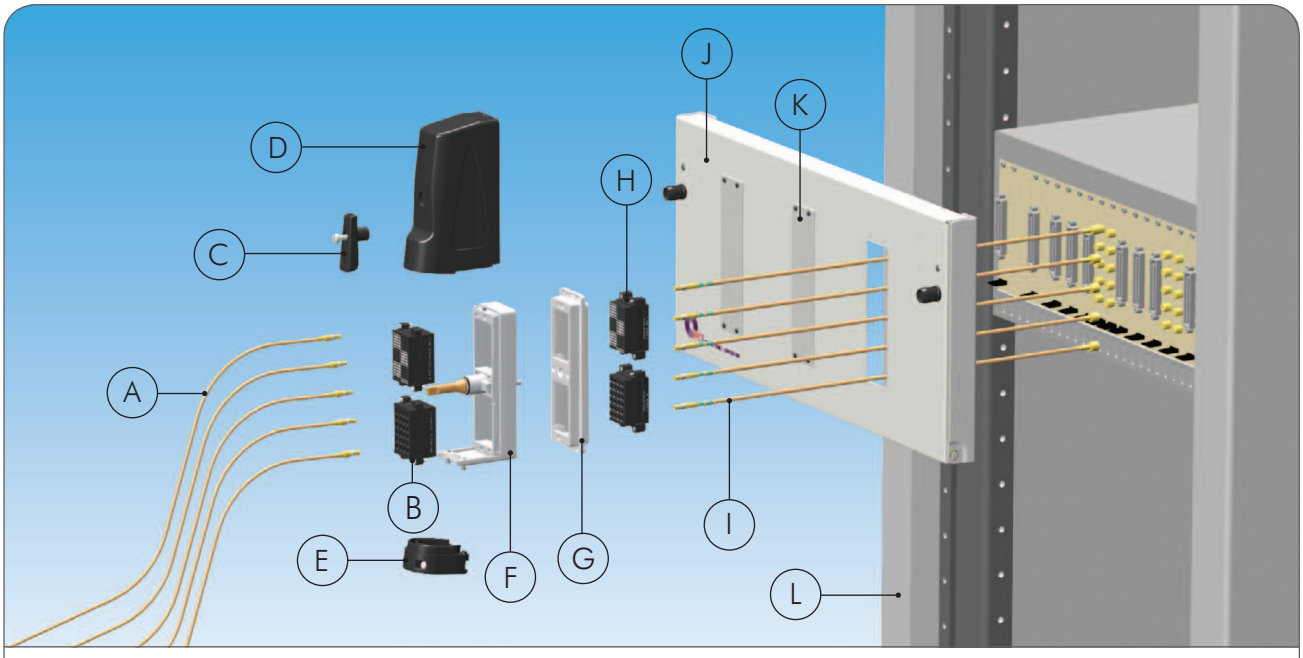
For more information and recommended PCB cutouts; refer to pages 73-74 and visit www.vpc.com/PCBlayouts.

iConEMI

The iConEMI has many of the standard features of the iCon, in addition to Electro-Magnetic Interference protection. The shielding effect provided by the stainless steel fibers in the plastic cover and threaded metal coupling adapter minimizes unwanted noise and maintains signal integrity. The "Mate First, Break Last" feature connects the earth ground circuit, while the earth ground terminal provided on the ITA and Receiver prevents user shock and injury. For reduced wiring cost and ease of integration, the iCon receiver is capable of being mounted directly to PCBs.

Electro-Magnetic Interference Shielding

For more information about coupling adapters, backshells and conduits, visit vpc.com/backshell

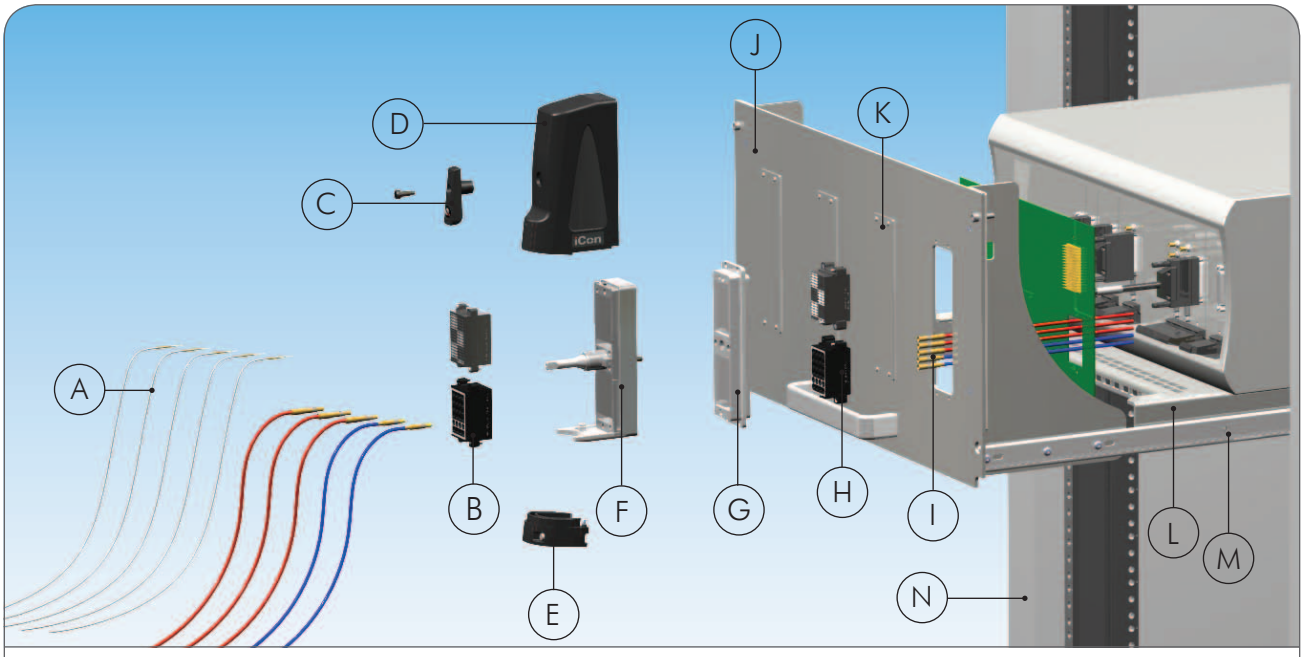


A. ITA Patchcords
B. iCon ITA Module
C. Engagement Handle
D. Removable Cover
E. U-shaped Clamp
F. iCon ITA Frame
G. iCon Receiver
H. iCon Receiver Module
I. Receiver Patchcords
J. Vertical Hinged Mounting Frame
K. iCon Cover Plate
L. Rack With Instruments

Part #	Description
RECEIVER	
310 123 101	Receiver, iCon (G)
310 123 102	Receiver, iCon, EMI-Shielded
ITA	
410 123 101	ITA, iCon (C)(D)(E)(F)
410 123 102	ITA, iCon, EMI-Shielded
410 123 106	ITA, iCon, with Large Cable Clamp
410 123 111	ITA, iCon, with Threaded Coupling Adapter
ACCESSORIES	
310 113 460	Replacement Protective Cover, iCon, Receiver
410 112 750	Replacement Protective Cover, iCon, ITA
310 113 456	Strain Relief, iCon, Receiver
310 113 461	Keying Pin Kit, iCon, Receiver and ITA
310 113 463	Vertical Hinged Mounting Frame, iCon, 5U, 3 Positions (J)
310 113 467	Cover Plate, iCon, for Mounting Frame Cutouts, Painted Gray (K)
310 113 491	Fixed Mounting Frame, iCon, 1U, 2 Positions
310 113 492	Fixed Mounting Frame, iCon, 4U, 10 Positions
MODULES	
For ITA and Receiver Modules (includes (B)(H)) refer to pages 35 through 46.	

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

For more information, visit vpc.com/iCon



A. ITA Patchcords
B. iCon ITA Module
C. Engagement Handle
D. Removable Cover
E. U-shaped Clamp
F. iCon ITA Frame
G. iCon Receiver
H. iCon Receiver Module
I. Receiver Patchcords
J. Mounting Plate with Slide Mount Kit
K. iCon Cover Plate
L. Instrument Bracket
M. Slide Kit
N. Rack With Instruments

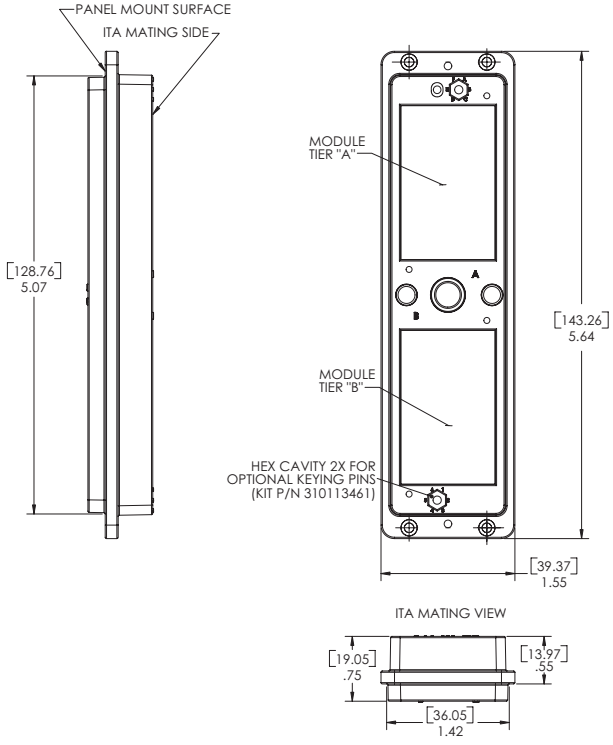
Part #	Description
RECEIVER	
310 123 101	Receiver, iCon (G)
310 123 102	Receiver, iCon, EMI-Shielded
ITA	
410 123 101	ITA, iCon (C)(D)(E)(F)
410 123 102	ITA, iCon, EMI-Shielded
410 123 106	ITA, iCon, with Large Cable Clamp
410 123 111	ITA, iCon, with Threaded Coupling Adapter
ACCESSORIES	
310 113 460	Replacement Protective Cover, iCon, Receiver
410 112 750	Replacement Protective Cover, iCon, ITA
310 113 456	Strain Relief, iCon, Receiver
310 113 461	Keying Pin Kit, iCon, Receiver and ITA
310 113 467	Cover Plate, iCon, for Mounting Frame Cutouts, Painted Gray (K)
310 113 540	Mounting Plate, iCon 6U, 4 Positions, with Slide Mounting Kit (slide kit required) (J)(L)
SLIDE KITS (M)	
310 113 527	28" Slide Kit, Fits 28"-30" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
310 113 528	30" Slide Kit, Fits 30"-32" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
310 113 529	36" Slide Kit, Fits 34"-38" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)
MODULES	

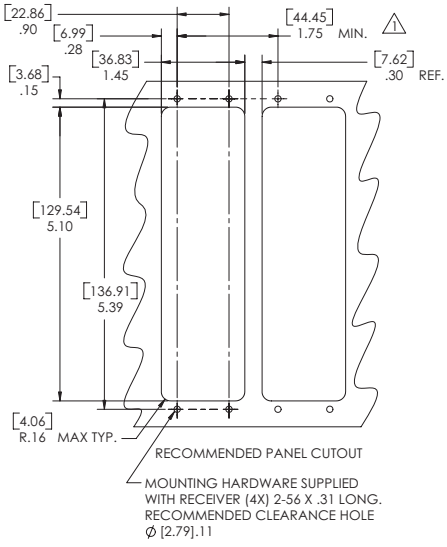
For ITA and Receiver Modules (includes (B)(H)) refer to pages 35 through 46.

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

For more information, visit vpc.com/iCon

iCon Receiver





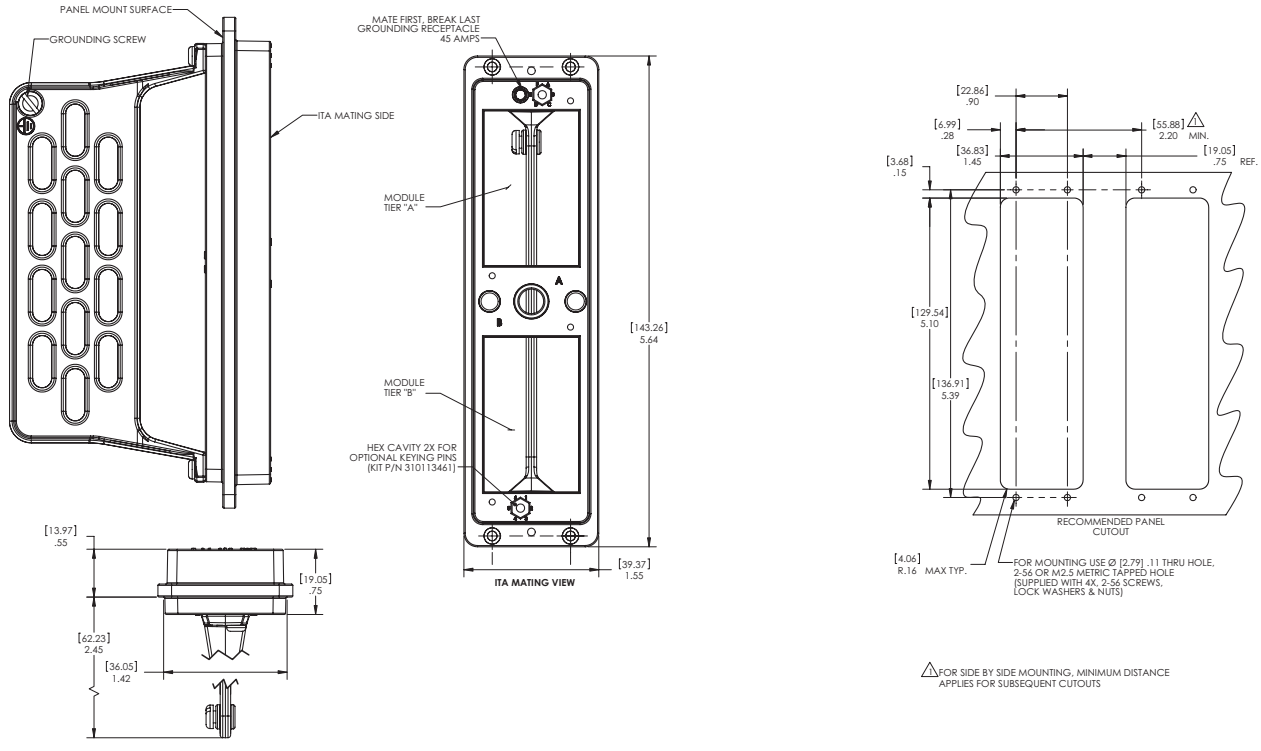
Receiver, iCon • Part # 310 123 101

Receiver Specifications

Weight	0.20 lbs [.09 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware Material	Stainlees Steel Alloy
Protective Cover Material	Black Thermoplastic
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

iCon accepts two modules and allows a variety of signal, power, coaxial, and thermocouple connections. A protective cover is included with the receiver, and other accessories, such as keying pin kits and strain relief, are available.

iConEMI Receiver


PANEL MOUNT SURFACE
GROUNDING SCREW
ITA MATING SIDE
MATE FIRST, BREAK LAST GROUNDING RECEPTACLE 45 AMPS
MODULE TIER "A"
MODULE TIER "B"
HEX CAVITY 2X FOR OPTIONAL KEYING PINS (KIT P/N 310113461)
[143.26] 5.64
[39.37] 1.55
ITA MATING VIEW
[13.97] .55
[19.05] .75
[62.23] 2.45
[36.05] 1.42
[22.86] .90
[6.99] .28
[36.83] 1.45
[55.88] 2.20 MIN.
[19.05] .75 REF.
[3.68] .15
[129.54] 5.10
[136.91] 5.39
RECOMMENDED PANEL CUTOUT
[4.06] R.16 MAX TYP.
FOR MOUNTING USE Ø [2.79] .11 THRU HOLE, 2-56 OR M2.5 METRIC TAPPED HOLE (SUPPLIED WITH 4X, 2-56 SCREWS, LOCK WASHERS & NUTS)
FOR SIDE BY SIDE MOUNTING, MINIMUM DISTANCE APPLIES FOR SUBSEQUENT CUTOUTS

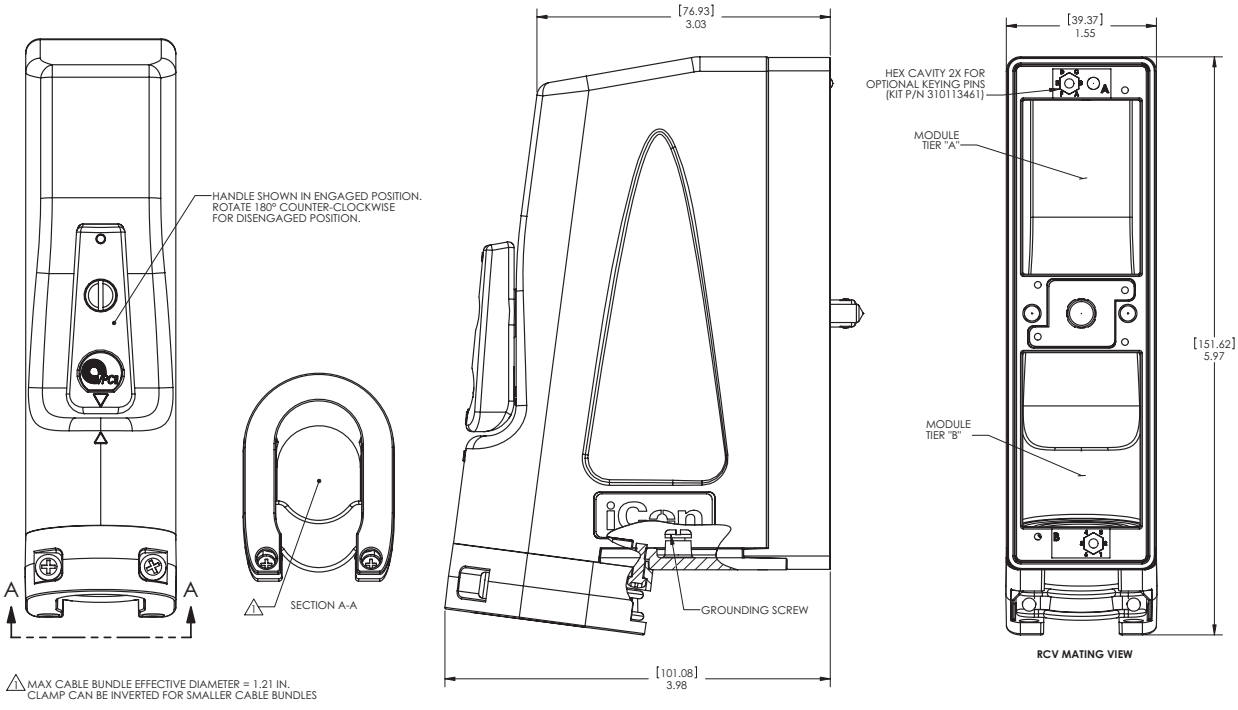
Receiver, iCon, EMI Shielded • **Part # 310 123 102**

Receiver Specifications

Weight	0.20 lbs [.09 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware Material	Stainless Steel Alloy
Protective Cover Material	Black Thermoplastic
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

The iConEMI has many of the standard features of the iCon, in addition to Electro-Magnetic Interference protection. An earth ground terminal is included on the iConEMI Receiver. The "Mate First, Break Last" feature connects the earth ground circuit. The earth ground terminal on the strain relief prevents user shock and injury.

iCon ITA



➤ ITA, iCon • **Part # 410 123 101**

ITA Specifications

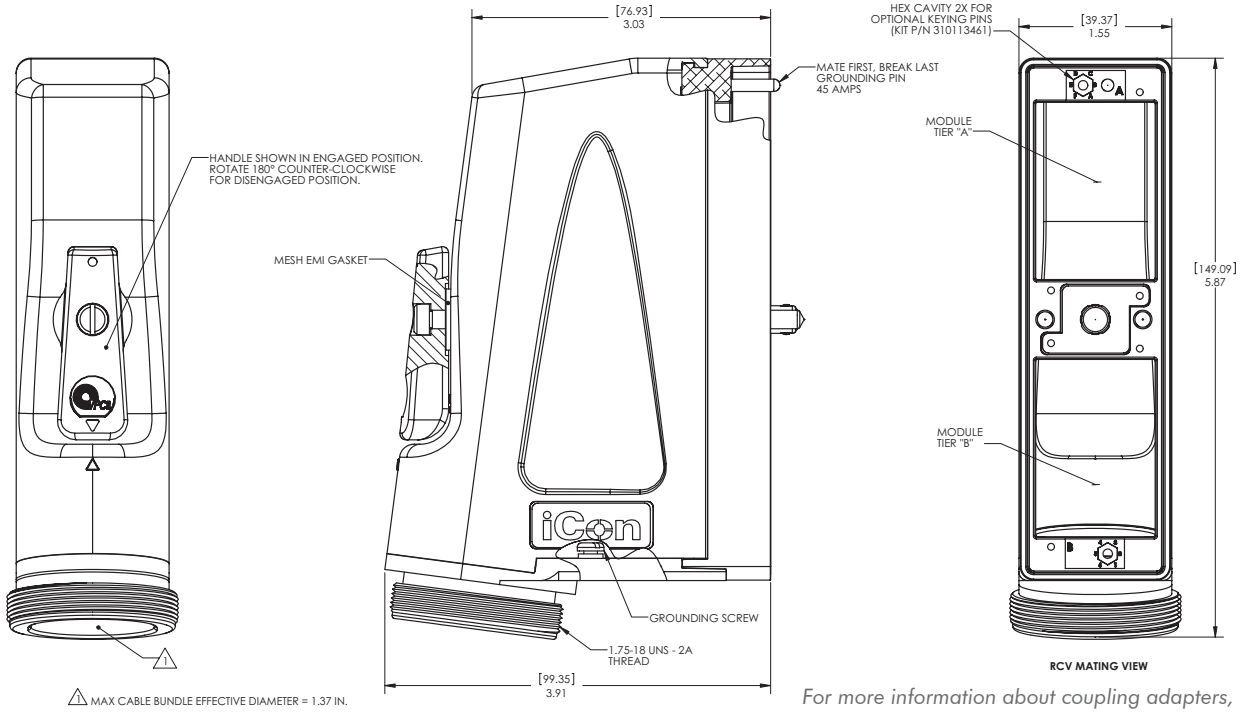
Weight	0.65 lbs [.29 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel
Drive Unit	Bronze and Stainless Steel
Plastic Components and Protective Cover Material	Black Thermoplastic
Cable Clamp Material	Powder Coated Aluminum
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

TECH TIP

The U-shaped cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation please see our Tech Tip on page 72.

The iCon ITA's small width and inboard handle increase the side to side stackability. The U-Shaped Cable Clamp allows modules to be pre-wired before assembly and can hold cable bundles up to 1.21" diameter. The slide off cover allows easy access to wiring for maintenance and probing. Protective cover included.

iConEMI ITA



For more information about coupling adapters, backshells and conduits, visit ***vpc.com/backshell***

ITA, iCon, EMI Shielded • **Part # 410 123 102**

ITA Specifications

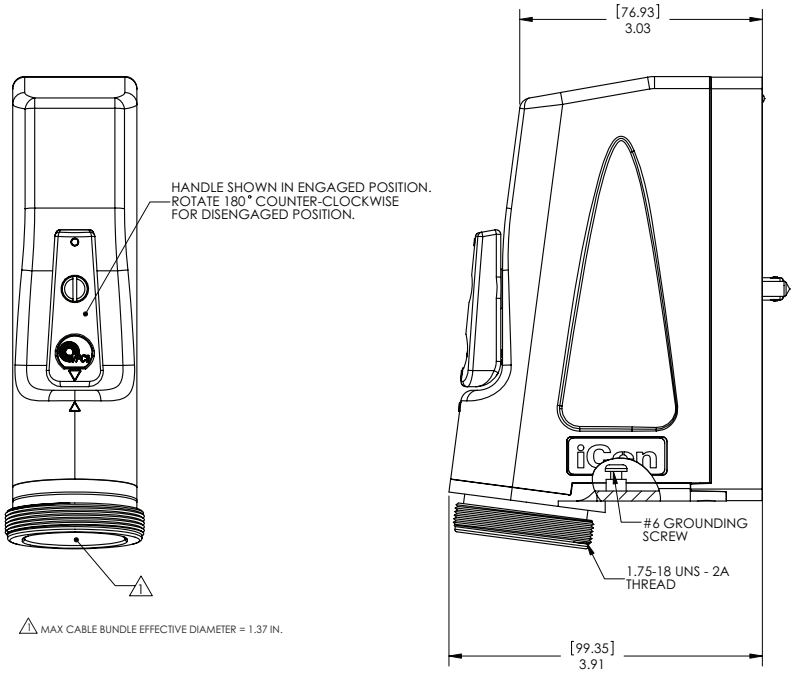
Weight	0.65 lbs [.29 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel
Drive Unit	Bronze and Stainless Steel
Cable Clamp Material	Stainless Steel
Plastic Components and Protective Cover Material	Stainless Steel Filled Impact Modified Nylon
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

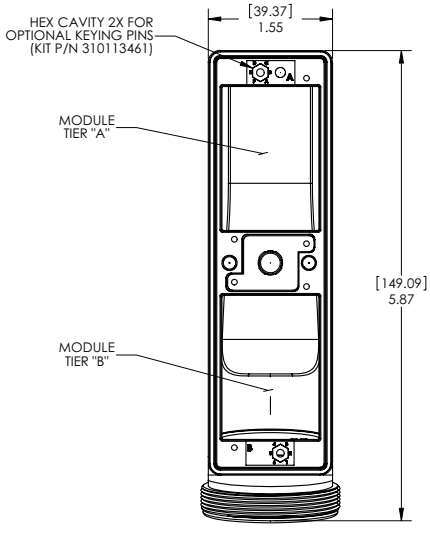
TECH TIP

For the equation regarding cable bundle size, please see our Tech Tip on page 72.

The EMI shielding effect on the iConEMI ITA is provided by the stainless steel fibers in the removable plastic cover and threaded metal coupling adapter. The opening in the threaded coupling adapter provides clearance for a maximum cable bundle of 1.37" diameter. Protective cover included.

iCon ITA with Threaded Coupling Adapter





For more information about coupling adapters, backshells and conduits, visit vpc.com/backshell

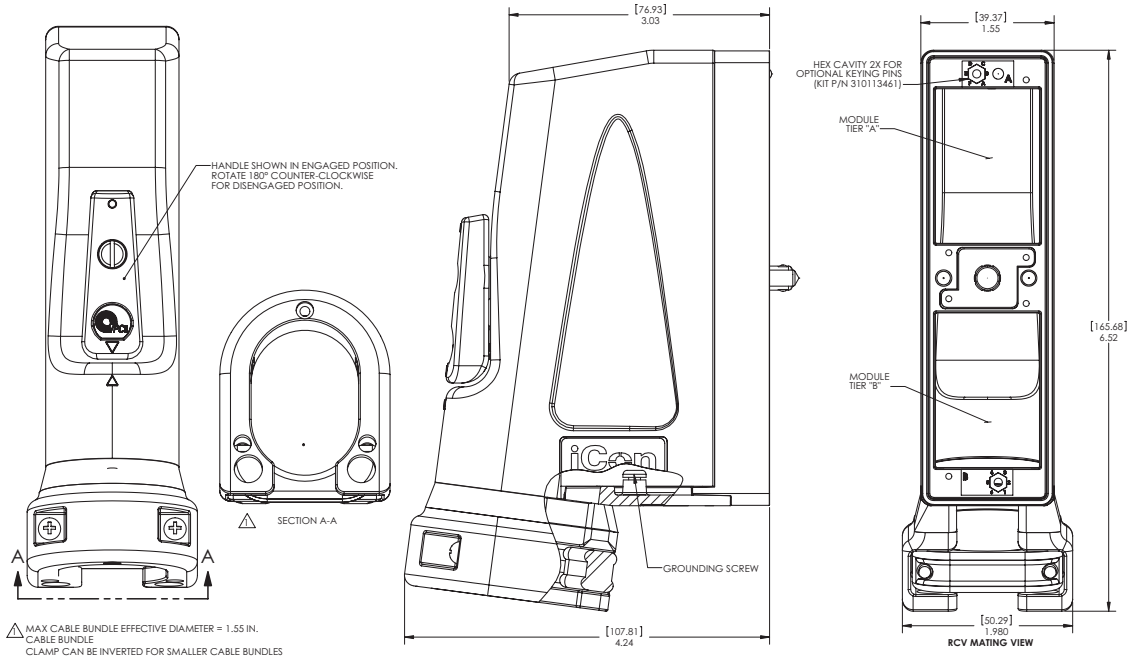
➤ ITA, iCon, with Threaded Coupling Adapter • **Part # 410 123 111**

ITA Specifications

Weight	0.65 lbs [.29 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel
Drive Unit	Bronze and Stainless Steel
Plastic Components and Protective Cover Material	Stainless Steel Filled Impact Modified Nylon
Cable Clamp Material	Stainless Steel
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

The opening in the threaded coupling adapter provides clearance for a maximum cable bundle of 1.37" diameter. Protective cover included.

iCon ITA with Large Cable Clamp



➤ ITA, iCon with Large Cable Clamp • **Part # 410 123 106**

ITA Specifications

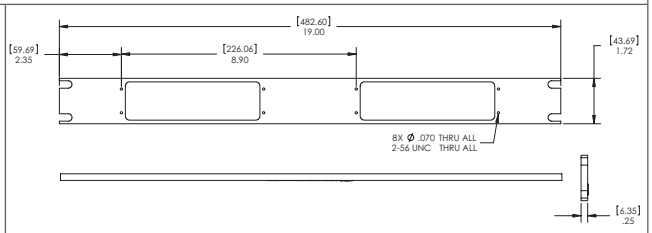
Weight	0.65 lbs [.29 Kg] without protective cover
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel
Drive Unit	Bronze and Stainless Steel
Plastic Components and Protective Cover Material	Black Thermoplastic
Cable Clamp Material	Powder Coated Aluminum
Available Module Positions	2
Cycle Life	10,000 cycles
Temperature	-55° C to 100° C

TECH TIP

The U-shaped cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation please see our Tech Tip on page 72.

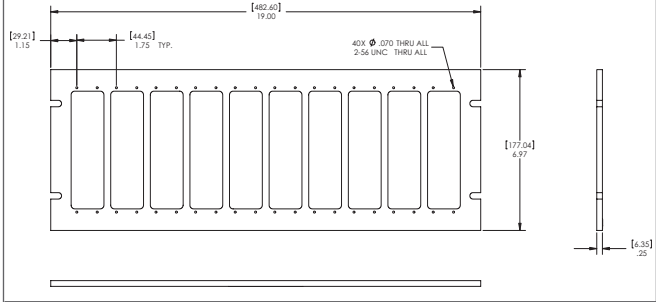
This iCon has a large cable clamp that will accommodate cable bundles up to 1.55" diameter. The slide-off cover allows easy access to wiring for maintenance and probing. Protective cover included.

iCon Accessories

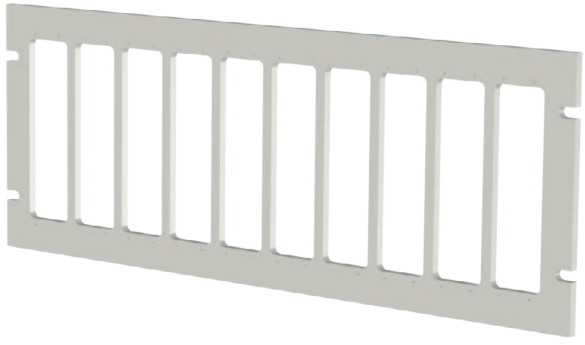


The 1U Fixed Mounting Frame has 2 horizontal positions. Also available in black anodized (310 113 488).
iCon cover plate sold separately (310 113 467-gray, 310 113 490-black).

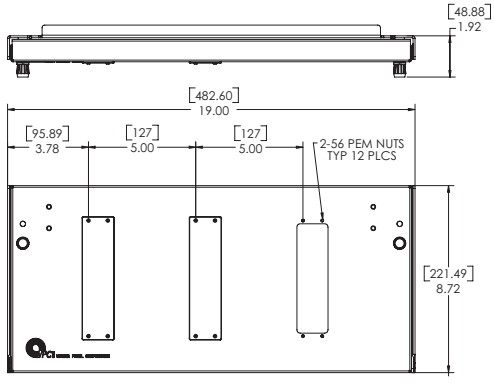
➤ Fixed Mounting Frame, iCon, 1U, 2 Positions • **Part # 310 113 491**



The 4U Fixed Mounting Frame has 10 vertical positions. Also available in black anodized 310 113 486.
iCon cover plate sold separately (310 113 467-gray, 310 113 490-black).



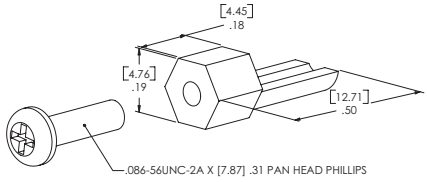
➤ Fixed Mounting Frame, iCon, 4U, 10 Positions • **Part # 310 113 492**



The 5U Vertical Hinged Mounting Frame mounts to standard 19" racks and hinges open to allow access to wiring between the instruments and VPC Receiver. The 3 cutouts are spaced evenly across the panel. iCon cover plate sold separately 310 113 467.

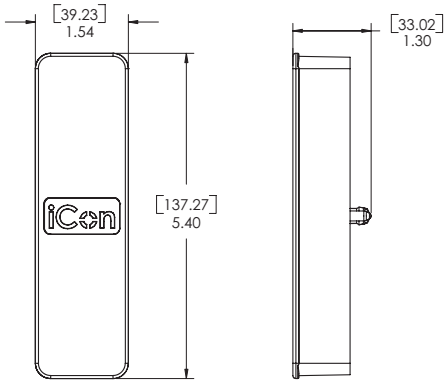
➤ Vertical Hinged Mounting Frame, iCon, 5U, 3 Positions • **Part # 310 113 463**

iCon Accessories



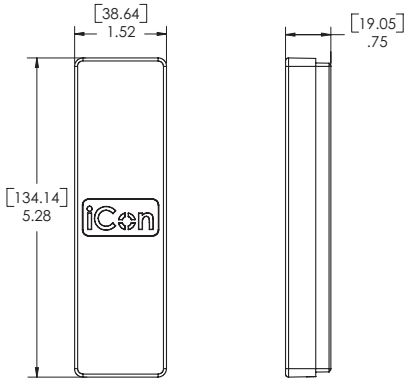
The iCon keying pin kit includes 1 set of 2 hex keys. One set will allow 6 different options and 2 sets can provide 36 different keying options. The keying kit provides a way to isolate your connectors to prevent operational mismatch.

➤ Keying Pin Kit, iCon/i1, Receiver and ITA • **Part # 310 113 461**



The Receiver protective cover is designed to protect your modules and contacts while the test system is not in use. A protective cover is included with the iCon Receiver.

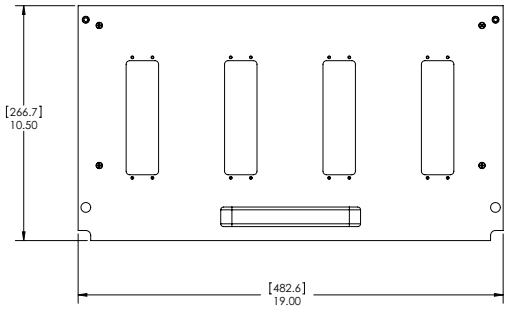
➤ Replacement Protective Cover, iCon, Receiver • **Part # 310 113 460**

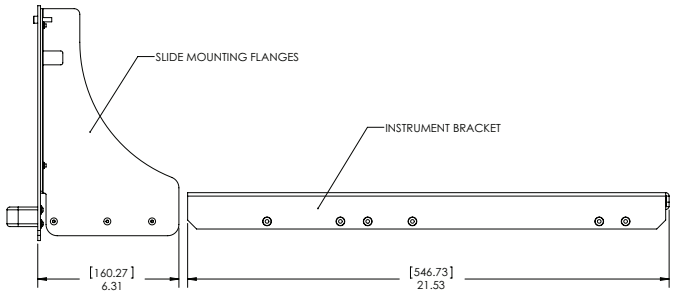


The ITA protective cover is designed to protect your modules and contacts when the ITA is not engaged. A protective cover is included with the iCon ITA.

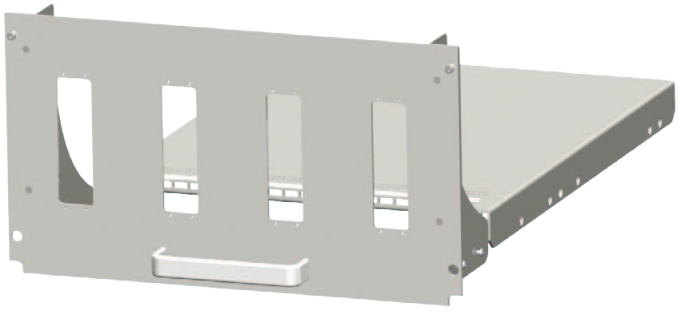
➤ Replacement Protective Cover, iCon, ITA • **Part # 410 112 750**

iCon Accessories

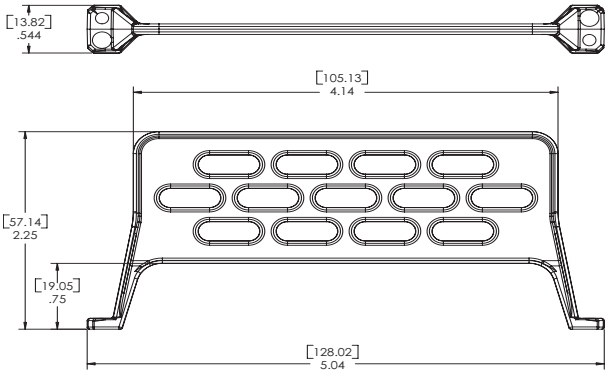


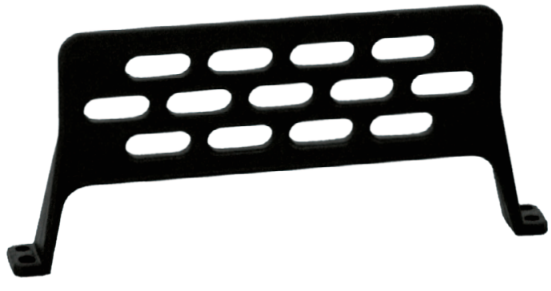


The 6U Slide-Mounted Plate mounts to standard 19" racks and slides open to allow access to wiring between the instruments and VPC iCon receivers. The 4 cutouts are spaced evenly across the panel. iCon cover plate sold separately (310 113 467). This mounting plate is designed to work with a slide kit and includes flanges and an instrument bracket. A slide kit is required for use. *Note: See page 25 for a list of available slide kits.*



➤ Mounting Plate, iCon, 6U, 4 Positions, with Slide Mounting Kit • **Part # 310 113 540**





The strain relief attaches to the wiring side of the iCon receiver and can be secured before receiver installation. The strain relief is made of black powder-coated aluminum. Six wire ties and mounting hardware included.

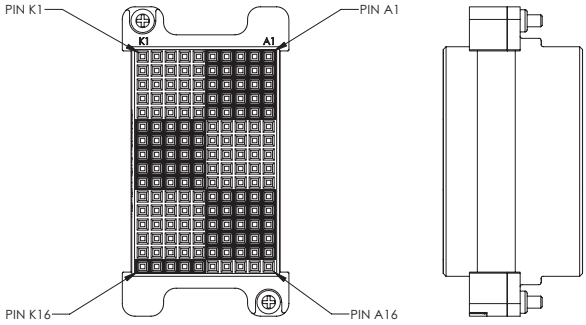
➤ Strain Relief, iCon, Receiver • **Part # 310 113 456**

160 Position QuadraPaddle Signal Modules

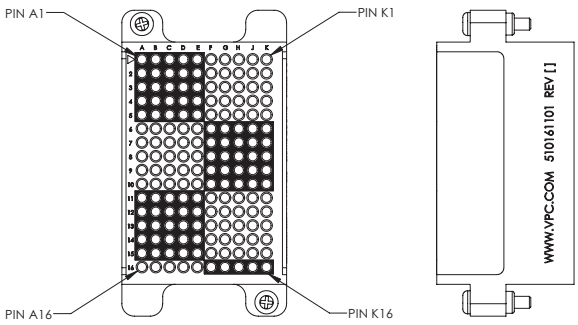
Module Specifications

Receiver Module Material	Black High-Temp Thermoplastic
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
ITA Module Material	Black High-Temp Thermoplastic
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
Available Contact Positions	160
Module Positions Needed	1

160 Position QuadraPaddle Modules • ITA and Receiver



RCV • Part # 510 160 101



ITA • Part # 510 161 101

Part #	Description	Contacts Used
ICON RECEIVER QUADRAPADDLE MODULE		
510 160 101	QuadraPaddle Signal Module, Receiver, iCon, 160 Position, for Crimp Contacts	610 138 116
510 160 105	QuadraPaddle Signal Module, Receiver, iCon, 160 Position, fully loaded with 610 138 100 Twin Female Contacts	610 138 100 610 138 117 610 138 118
ICON ITA QUADRAPADDLE MODULE		
510 161 101	QuadraPaddle Signal Module, ITA, iCon, 160 Position	610 138 109 610 138 122 610 138 112 610 138 115

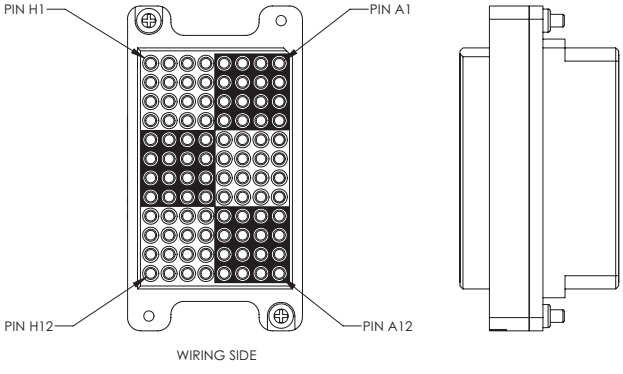
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

96 Position TriPaddle Signal Modules

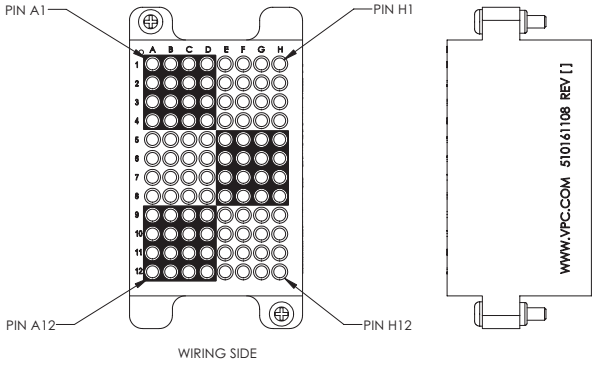
Module Specifications

Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	96
Module Positions Needed	1

96 Position TriPaddle Signal Modules • ITA and Receiver



RCV • Part # 510 160 108



ITA • Part # 510 161 108

Part #	Description	Contacts Used
ICON RECEIVER TRIPADDLE SIGNAL MODULE		
510 160 108	TriPaddle Signal Module, Receiver, iCon, 96 Position	610 110 101 610 110 104 610 110 128 610 110 167
ICON ITA TRIPADDLE SIGNAL MODULE		
510 161 108	TriPaddle Signal Module, ITA, iCon, 96 Position	610 110 108 610 110 113 610 110 129 610 110 169

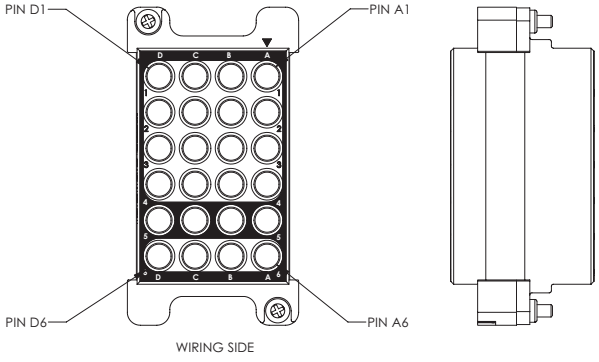
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

24 Position Mini Power or Mini Coaxial Modules

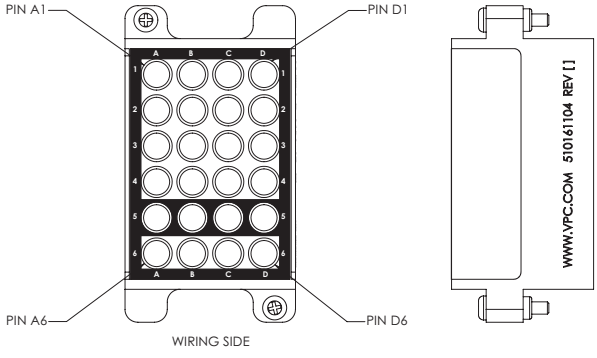
Module Specifications

Receiver Module Material	Black High-Temp Thermoplastic
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
ITA Module Material	Black High-Temp Thermoplastic
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
Available Contact Positions	24
Module Positions Needed	1

24 Position Mini Power or Mini Coaxial Modules • ITA and Receiver



RCV • Part # 510 160 104



ITA • Part # 510 161 104

Part #	Description	Contacts Used	
		MINI POWER	MINI COAX
ICON RECEIVER MINI POWER OR MINI COAXIAL MODULE			
510 160 104	Mini Power or Mini Coaxial Module, Receiver, iCon, 24 Position	610 116 112	610 104 114 610 104 140 610 104 141 610 104 142
ICON ITA MINI POWER OR MINI COAXIAL MODULE			
510 161 104	Mini Power or Mini Coaxial Module, ITA, iCon, 24 Position	610 115 124 610 115 125	610 103 115 610 103 129 610 103 130 610 103 136 610 103 140 610 103 150 610 103 161

NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) can be used with these modules. Please see page 57 for details.

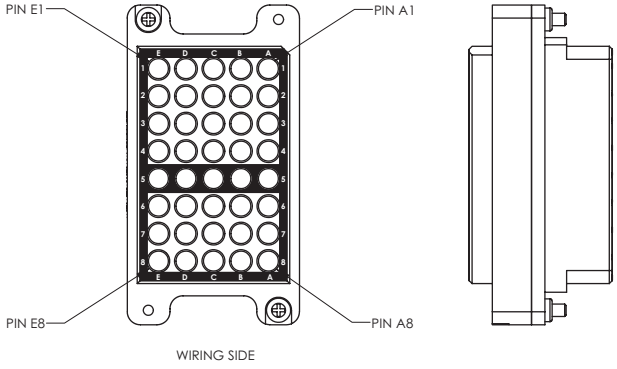
NOTE: Refer to User's Manual for power applications with this module.

40 Position Micro Power or Micro Coaxial Modules

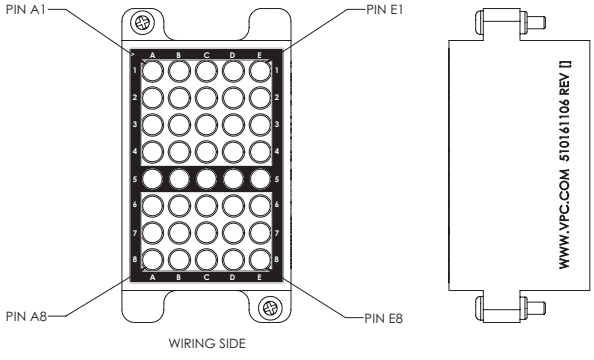
Module Specifications

Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	40
Module Positions Needed	1

40 Position Micro Power or Micro Coax Modules • ITA and Receiver



RCV • Part # 510 160 106



ITA • Part # 510 161 106

Part #	Description	Contacts Used	
		MICRO POWER	MICRO COAX
ICON RECEIVER MICRO POWER OR MICRO COAX MODULE			
510 160 106	Micro Power or Micro Coaxial Module, Receiver, iCon, 40 Position	610 142 101 610 142 102	610 140 101 610 140 102 610 140 103 610 140 104
ICON ITA MICRO POWER OR MICRO COAX MODULE			
510 161 106	Micro Power or Micro Coaxial Module, ITA, iCon, 40 Position	610 143 101	610 141 101 610 141 102 610 141 103 610 141 104

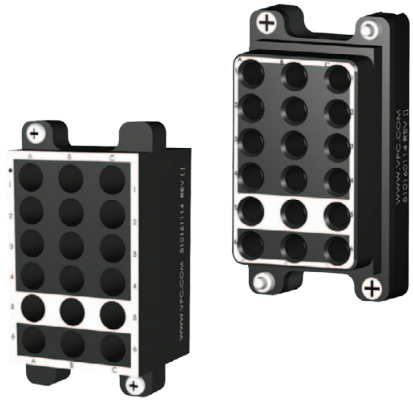
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

NOTE: Refer to User's Manual for power applications with this module.

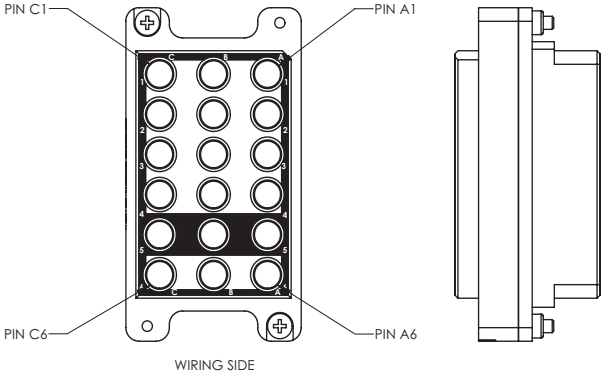
18 Position 20/26 GHz and 75 Ohm HD Coaxial Modules

Module Specifications

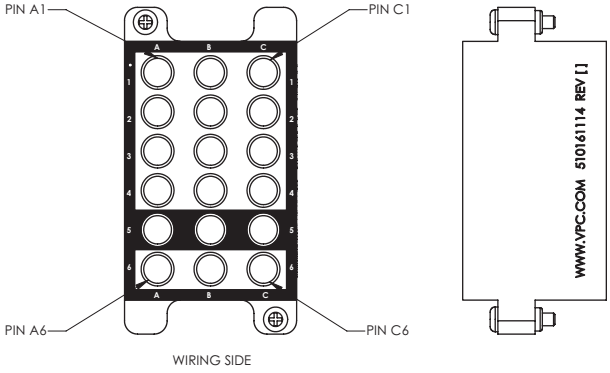
Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	18
Module Positions Needed	1



18 Position 20/26 GHz and 75 Ohm HD Coaxial Modules • ITA and Receiver



RCV • Part # 510 160 114



ITA • Part # 510 161 114

Part #	Description	Contacts Used	
		20/26 GHz	75 OHM HD
ICON RECEIVER 20/26 GHZ AND 75 OHM HD COAXIAL MODULE			
510 160 114	Coaxial Module, Receiver, iCon, 20/26 GHz/75 Ohm HD, 18 Position	610 102 119 (patchcord only)	610 102 133
ICON ITA 20/26 GHZ AND 75 OHM HD COAXIAL MODULE			
510 161 114	Coaxial Module, ITA, iCon, 20/26 GHz/75 Ohm HD, 18 Position	610 102 118 (patchcord only)	610 102 132

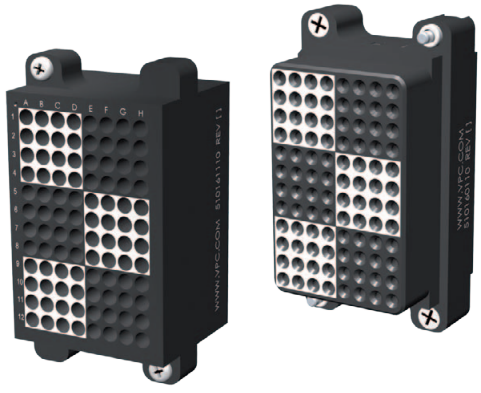
NOTE: Refer to User's Manual for power applications with this module.

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

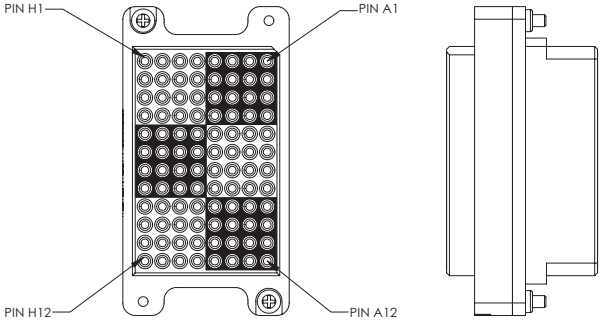
96 Position Thermocouple Modules

Module Specifications

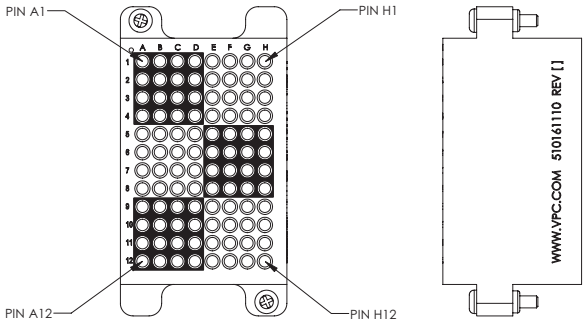
Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	96
Module Positions Needed	1



96 Position Thermocouple Modules • ITA and Receiver



RCV • Part # 510 160 110



ITA • Part # 510 161 110

Part #	Description	Contacts Used	
		CHROMEL	ALUMEL
ICON RECEIVER THERMOCOUPLE MODULE			
510 160 110	Thermocouple Module, Receiver, iCon, 96 Position	610 113 131	610 113 132
ICON ITA THERMOCOUPLE MODULE			
510 161 110	Thermocouple Module, ITA, iCon, 96 Position	610 113 133	610 113 134

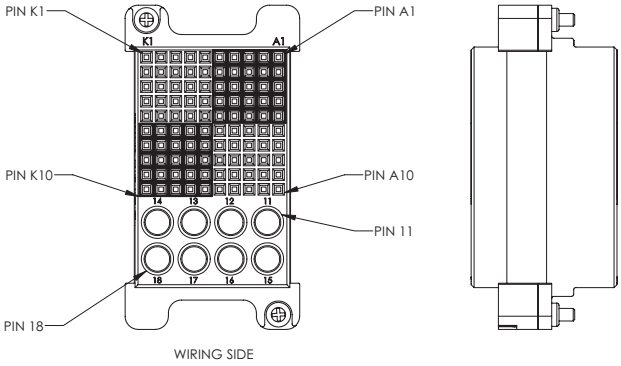
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

100/8 QuadraPaddle/Mini Power or Mini Coaxial Modules

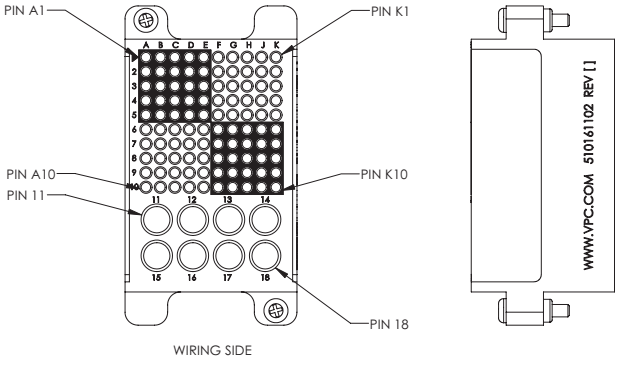
Module Specifications

Receiver Module Material	Black High-Temp Thermoplastic
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
ITA Module Material	Black High-Temp Thermoplastic
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
Available Contact Positions	100/8
Module Positions Needed	1

100/8 Position QuadraPaddle/Mini Power or Mini Coaxial Modules
ITA and Receiver



RCV • Part # 510 160 102



ITA • Part # 510 161 102

Part #	Description	Contacts Used		
		QUADRAPADDLE	MINI POWER	MINI COAX
ICON RECEIVER QUADRAPADDLE/MINI POWER OR MINI COAXIAL MODULE				
510 160 102	QuadraPaddle Signal/Mini Power or Mini Coaxial Module, Receiver, iCon, 100/8 Position	610 138 116	610 116 112	610 104 114 610 104 140 610 104 141 610 104 142
ICON ITA QUADRAPADDLE/MINI POWER OR MINI COAXIAL MODULE				
510 161 102	QuadraPaddle Signal/Mini Power or Mini Coaxial Module, ITA, iCon, 100/8 Position	610 138 109 610 138 122 610 138 112 610 138 115	610 115 124 610 115 125	610 103 115 610 103 129 610 103 130 610 103 136 610 103 140 610 103 150 610 103 161

NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) can be used with these modules. Please see page 57 for details.

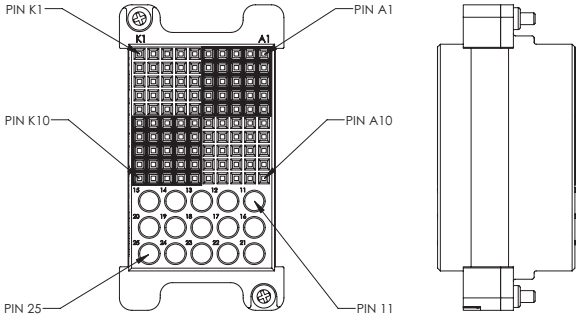
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

100/15 QuadraPaddle/Micro Power or Micro Coaxial Modules

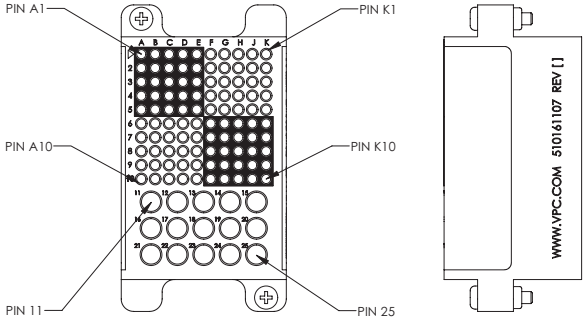
Module Specifications

Receiver Module Material	Black High-Temp Thermoplastic
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -65°C to 220°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	100/15
Module Positions Needed	1

100/15 Position QuadraPaddle/Micro Power or Micro Coaxial Modules
ITA and Receiver



RCV • Part # 510 160 107



ITA • Part # 510 161 107

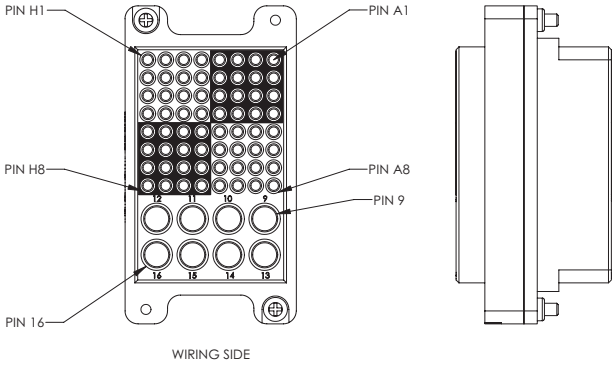
Part #	Description	Contacts Used		
		QUADRAPADDLE	MICRO POWER	MICRO COAX
ICON RECEIVER QUADRAPADDLE/MICRO POWER OR MICRO COAXIAL MODULE				
510 160 107	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 100/15 Position, for Crimp Contacts	610 138 116	610 142 101 610 142 102	610 140 101 610 140 102 610 140 103 610 140 104
510 160 112	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 100/15 Position, loaded with 100 610138100 Twin Female Contacts	610 138 100 610 138 117 610 138 118	610 142 101 610 142 102	610 140 101 610 140 102 610 140 103 610 140 104
ICON ITA QUADRAPADDLE/MICRO POWER OR MICRO COAXIAL MODULE				
510 161 107	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 100/15 Position	610 138 109 610 138 122 610 138 112 610 138 115	610 143 101	610 141 101 610 141 102 610 141 103 610 141 104

64/8 TriPaddle Signal/Mini Power or Mini Coaxial Modules

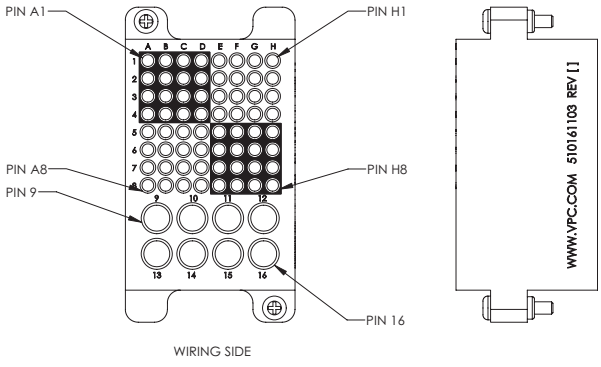
Module Specifications

Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	64/8
Module Positions Needed	1

64/8 Position TriPaddle Signal/Mini Power or Mini Coaxial Modules
ITA and Receiver



RCV • Part # 510 160 103



ITA • Part # 510 161 103

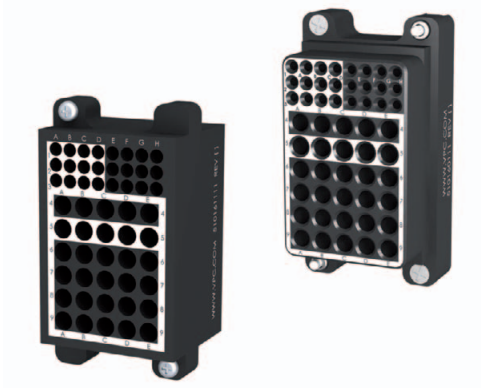
Part #	Description	Contacts Used		
		TRIPADDLE	MINI POWER	MINI COAX
ICON RECEIVER TRIPADDLE SIGNAL/MINI POWER OR MINI COAXIAL MODULE				
510 160 103	TriPaddle Signal/Mini Power or Mini Coaxial Module, Receiver, iCon, 64/8 Position	610 110 101 610 110 104 610 110 128 610 110 167	610 116 112	610 104 114 610 104 140 610 104 141 610 104 142
ICON ITA TRIPADDLE SIGNAL/MINI POWER OR MINI COAXIAL MODULE				
510 161 103	TriPaddle Signal/Mini Power or Mini Coaxial Module, ITA, iCon, 64/8 Position	610 110 108 610 110 113 610 110 129 610 110 169	610 115 124 610 115 125	610 103 115 610 103 129 610 103 130 610 103 136 610 103 150 610 103 161

NOTE: Mini Pneumatic contacts (610 132 106 and 610 131 108) can be used with these modules. Please see page 57 for details.

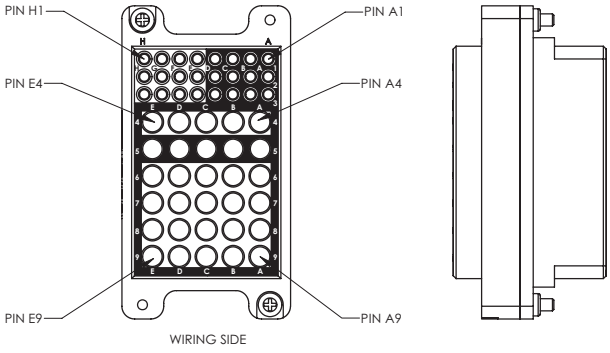
24/30 TriPaddle Signal/Micro Power or Micro Coaxial Modules

Module Specifications

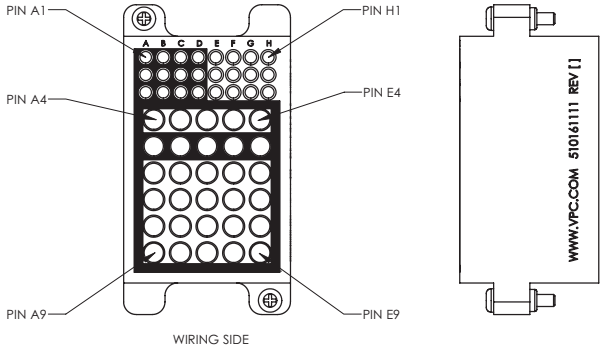
Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	24/30
Module Positions Needed	1



24/30 Position TriPaddle/ Micro Power or Micro Coax Modules
ITA and Receiver



RCV • Part # 510 160 111



ITA • Part # 510 161 111

Part #	Description	Contacts Used		
		TRIPADDLE	MICRO POWER	MICRO COAX
ICON RECEIVER TRIPADDLE SIGNAL/MICRO POWER OR MICRO COAXIAL MODULE				
510 160 111	TriPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 24/30 Position	610 110 101 610 110 104 610 110 128 610 110 167	610 142 101 610 142 102	610 140 101 610 140 102 610 140 103 610 140 104
ICON ITA TRIPADDLE SIGNAL/MICRO POWER OR MICRO COAXIAL MODULE				
510 161 111	TriPaddle Signal/Micro Power or Micro Coaxial Module, ITA, iCon, 24/30 Position	610 110 108 610 110 113 610 110 129 610 110 169	610 143 101	610 141 101 610 141 102 610 141 103 610 141 104

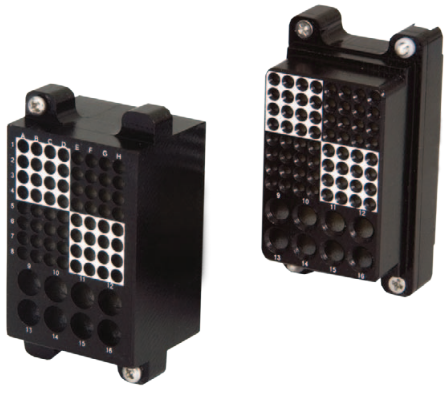
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

NOTE: Refer to User's Manual for power applications with this module.

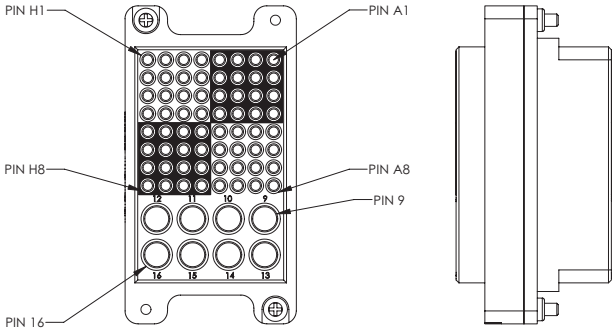
64/8 TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Modules

Module Specifications

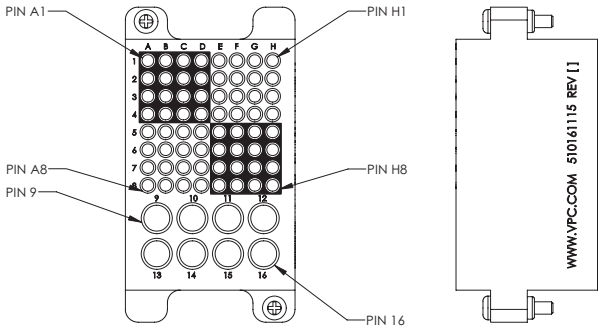
Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	64/8
Module Positions Needed	1



64/8 Position TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Modules ITA and Receiver



RCV • Part # 510 160 115



ITA • Part # 510 161 115

Part #	Description	Contacts Used		
		TRIPADDLE	20/26 GHz	75 OHM HD
ICON RECEIVER TRIPADDLE SIGNAL / 20/26 GHZ & 75 OHM HD COAXIAL MODULE				
510 160 115	TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Module, Receiver, iCon, 64/8 Position	610 110 101 610 110 104 610 110 128 610 110 167	610 102 119 (patchcord only)	610 102 133
ICON ITA TRIPADDLE SIGNAL / 20/26 GHZ COAXIAL MODULE				
510 161 115	TriPaddle Signal / 20/26 GHz & 75 Ohm HD Coaxial Module, ITA, iCon, 64/8 Position	610 110 108 610 110 113 610 110 129 610 110 169	610 102 118 (patchcord only)	610 102 132

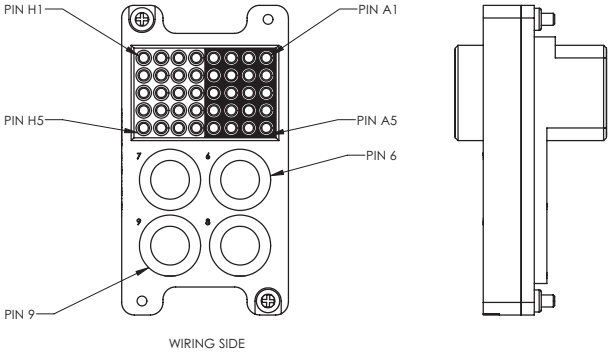
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

40/4 Position TriPaddle/Twinaxial Modules

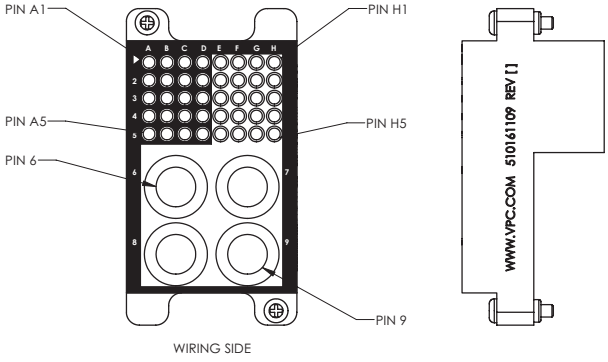
Module Specifications

Receiver Module Material	G10 Epoxy Glass
Receiver Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
ITA Module Material	G10 Epoxy Glass
ITA Module Temperature	Operating • -55°C to 125°C Non Operating • -55°C to 140°C
Available Contact Positions	40/4
Module Positions Needed	1

40/4 Position TriPaddle/Twinaxial Modules • ITA and Receiver



RCV • Part # 510 160 109



ITA • Part # 510 161 109

Part #	Description	Contacts Used	
		TRIPADDLE	TWINAXIAL
ICON RECEIVER TRIPADDLE/TWINAXIAL MODULE			
510 160 109	TriPaddle Signal/Twinaxial Module, Receiver, iCon, 40/4 Position	610 110 101 610 110 104 610 110 128 610 110 167	610 113 144
ICON ITA TRIPADDLE/TWINAXIAL MODULE			
510 161 109	TriPaddle Signal/Twinaxial Module, ITA, iCon, 40/4 Position	610 110 108 610 110 113 610 110 129 610 110 169	610 113 145

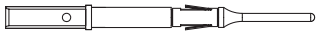
To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

QuadraPaddle® Signal Contacts

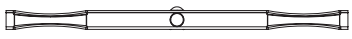
Contact Specifications

Operating Current and Voltage	5 Amp Max. Continuous; 600 volt Max. use of wire Mil-W-16878/4
Contact Resistance	25 mOhms Max. Measured at 50 mV @ 100 mA
Mating Force	2 oz. Nominal [0.05 Kg]
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	5000 Mohms Min.
Contact Body	(RCV) – BeCu (Twin Female) BeCu/PhBrz (Crimp) Male (ITA) – Brass
Contact Plating	Female (RCV) – 50µ" Au over 100µ" Ni Male (ITA) – 30µ" Au over 100µ" Ni
Cycle Life	20,000 cycles

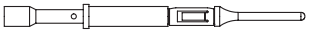
Part # 610 138 116



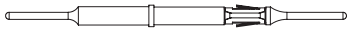
Part # 610 138 109



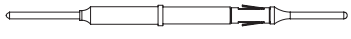
Part # 610 138 100



Part # 610 138 112

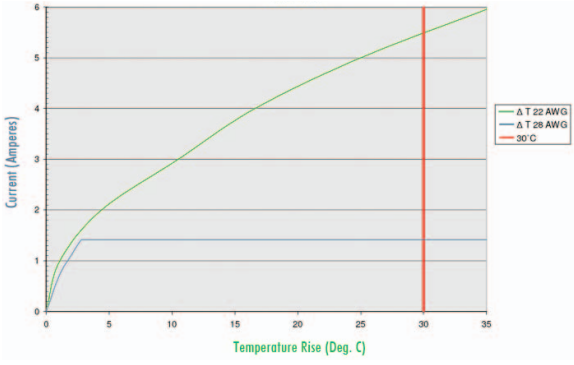


Part # 610 138 115



Part # 610 138 122

QuadraPaddle (22 & 28 AWG) T-Rise Test



Part # 610 138 117

Part # 610 138 118

Part #	Description	Used in Module
QUADRAPADDLE RECEIVER CONTACTS		
610 138 100	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Twin Female – Replacement	510 160 105/112
610 138 116	Signal Contact, Receiver, QuadraPaddle, 5 Amp, 22-28 AWG, Crimp	510 160 101/102/107
610 138 117	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, .025" Round Post	510 160 105/112
610 138 118	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, .025" Square Post, Wire Wrap	510 160 105/112
QUADRAPADDLE ITA CONTACTS		
610 138 109	Signal Contact, ITA, QuadraPaddle, 5 Amp, 22–24 AWG, Crimp/Solder	510 161 101/102/107
610 138 112	Signal Contact, ITA, QuadraPaddle, 5 Amp, 26–30 AWG, Crimp/Solder	510 161 101/102/107
610 138 115	Signal Contact, ITA, QuadraPaddle, 5 Amp, Twin Male, Round Post	510 161 101/102/107
610 138 122	Signal Contact, ITA, QuadraPaddle, 5 Amp, .025" Square Post for Wire Wrap, with Anti-Rotation	510 161 101/102/107

QuadraPaddle® Signal Patchcords

QuadraPaddle Receiver Patchcord				QuadraPaddle ITA Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
QUADRAPADDLE RECEIVER PATCHCORDS					
7-122 922 000-036	610 138 116	36"	22	Receiver, Single Ended	510 160 101/102/107
7-122 922 000-072	610 138 116	72"	22	Receiver, Single Ended	510 160 101/102/107
7-122 924 000-036	610 138 116	36"	24	Receiver, Single Ended	510 160 101/102/107
7-122 924 000-072	610 138 116	72"	24	Receiver, Single Ended	510 160 101/102/107
QUADRAPADDLE ITA PATCHCORDS					
7-121 922 000-036	610 138 109	36"	22	ITA, Single Ended	510 161 101/102/107
7-121 922 000-072	610 138 109	72"	22	ITA, Single Ended	510 161 101/102/107
7-121 924 000-036	610 138 109	36"	24	ITA, Single Ended	510 161 101/102/107
7-121 924 000-072	610 138 109	72"	24	ITA, Single Ended	510 161 101/102/107
QUADRAPADDLE ITA JUMPERS					
7-121 922 121-006	610 138 109	6"	22	ITA, Double Ended	510 161 101/102/107
7-121 924 121-006	610 138 109	6"	24	ITA, Double Ended	510 161 101/102/107

QuadraPaddle Receiver Twisted Pair Patchcord				QuadraPaddle ITA Twisted Pair Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
QUADRAPADDLE RECEIVER TWISTED PAIR PATCHCORDS					
7-122 422 000-036	610 138 116	36"	22	Receiver, Single Ended	510 160 101/102/107
7-122 422 000-072	610 138 116	72"	22	Receiver, Single Ended	510 160 101/102/107
7-122 424 000-036	610 138 116	36"	24	Receiver, Single Ended	510 160 101/102/107
7-122 424 000-072	610 138 116	72"	24	Receiver, Single Ended	510 160 101/102/107
QUADRAPADDLE ITA TWISTED PAIR PATCHCORDS					
7-121 422 000-036	610 138 109	36"	22	ITA, Single Ended	510 161 101/102/107
7-121 422 000-072	610 138 109	72"	22	ITA, Single Ended	510 161 101/102/107
7-121 424 000-036	610 138 109	36"	24	ITA, Single Ended	510 161 101/102/107
7-121 424 000-072	610 138 109	72"	24	ITA, Single Ended	510 161 101/102/107
QUADRAPADDLE ITA TWISTED PAIR JUMPERS					
7-121 422 121-006	610 138 109	6"	22	ITA, Double Ended	510 161 101/102/107
7-121 424 121-006	610 138 109	6"	24	ITA, Double Ended	510 161 101/102/107

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

Visit VPC's Patchcord Designer to configure USB, Ethernet, D-Sub, etc, patchcords.

QuadraPaddle® Contact Tools

Part # 910 101 103

Part # 910 101 103 is used with Locator Part # 910 104 140 to crimp ITA QuadraPaddle contacts to 22-28 AWG wire.

For information regarding gauge pins, visit ***vpc.com/gaugepins****.*

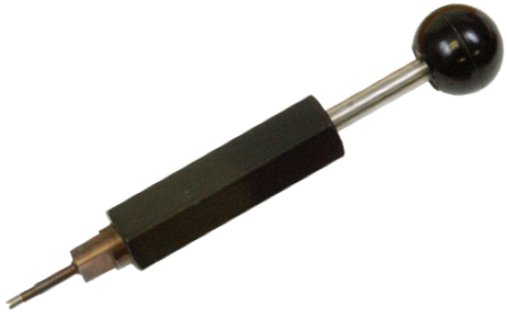
Part # 910 101 125

Crimp Tool Part # 910 101 125 is used to crimp receiver QuadraPaddle contacts.

Part # 910 110 112

Extraction Tool Part # 910 110 112 is used to extract the receiver QuadraPaddle contacts from the module.

Part # 910 110 111



Extraction Tool Part # 910 110 111 is used to remove the ITA QuadraPaddle contacts from the module.

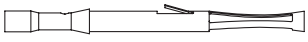
Part #	Description	Used on Contact
CRIMP TOOLS		
910 101 103	Tool, Crimp, QuadraPaddle and TriPaddle Contacts, Locator Required	610 138 109/112
910 101 125	Tool, Crimp, QuadraPaddle, Receiver	610 138 116
910 104 140	Tool, Locator, QuadraPaddle, ITA	610 138 109/112
EXTRACTION TOOLS		
910 110 111	Tool, Extraction, QuadraPaddle, ITA	610 138 109/111/112/115
910 110 112	Tool, Extraction, QuadraPaddle, Receiver	610 138 116
INSERTION TOOLS		
910 113 106	Tool, Insertion, QuadraPaddle ITA Wire-Wrap Contact	610 138 122

Visit vpc.com for complete instructions on how to use these tools.

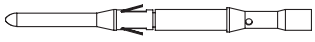
TriPaddle Signal Contacts

Contact Specifications

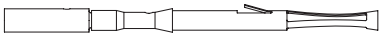
Operating Voltage and Current	7 Amp Max. Continuous (20 AWG) 10 Amp Max. Continuous (14 AWG) 600 Volt Max. use of wire Mil-W-16878/4
Contact Resistance	4 mOhms Max. Measured at 50 mV @ 100 mA
Mating Force	4 oz. Nominal [0.11 Kg]
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	4000 MOhms Min.
Contact Body	Female (RCV) – BeCu Male (ITA) – Brass
Contact Plating	Female (RCV) – 30μ" Au over 100μ" Ni Male (ITA) – 30μ" Au over 100μ" Ni 10 Amp (RCV & ITA) – 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles



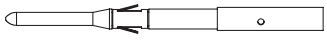
Part # 610 110 101



Part # 610 110 108

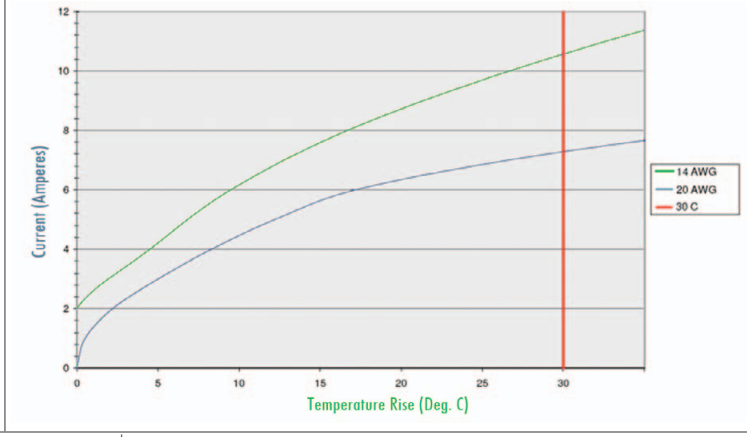


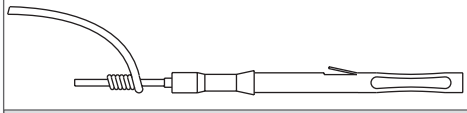
Part # 610 110 128



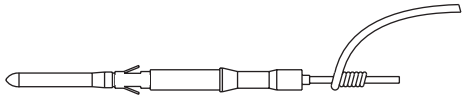
Part # 610 110 129

TriPaddle T-Rise Test





Part # 610 110 104



Part # 610 110 113

Part #	Description	Used in Module
TRIPADDLE RECEIVER CONTACTS		
610 110 101	Signal Contact, Receiver, TriPaddle, 7 Amp, 20-24 AWG, 30μ" Gold, Crimp	510 160 103/108/109/111/115
610 110 104	Signal Contact, Receiver, TriPaddle, 7 Amp, 0.025" Square Post for Wire Wrap, 30μ" Gold	510 160 103/108/109/111/115
610 110 128	Signal Contact, Receiver, TriPaddle, 10 Amp, 14 AWG (max), 50μ" Gold, Crimp/Solder	510 160 103/108/109/111/115
610 110 167	Signal Contact, Receiver, TriPaddle, 7 Amp, 26-28 AWG, 30μ" Gold, Crimp/Solder	510 160 103/108/109/111/115
TRIPADDLE ITA CONTACTS		
610 110 108	Signal Contact, ITA, TriPaddle, 7 Amp, 20-24 AWG, 30μ" Gold, Crimp/Solder	510 161 103/108/109/111/115
610 110 113	Signal Contact, ITA, TriPaddle, 7 Amp, 0.025" Square Post for Wire Wrap, 30μ" Gold	510 161 103/108/109/111/115
610 110 129	Signal Contact, ITA, TriPaddle, 10 Amp, 14 AWG (max), 30μ" Gold, Crimp/Solder	510 161 103/108/109/111/115
610 110 169	Signal Contact, ITA, TriPaddle, 7 Amp, 26-28 AWG, 30μ" Gold, Crimp/Solder	510 161 103/108/109/111/115

TriPaddle Signal Patchcords

TriPaddle Receiver Patchcord				TriPaddle ITA Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
TRIPADDLE RECEIVER PATCHCORDS					
7-102 914 000-036	610 110 128	36"	14	Receiver, Single Ended	510 160 103/108/109/111/115
7-102 914 000-072	610 110 128	72"	14	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 922 000-036	610 110 101	36"	22	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 922 000-072	610 110 101	72"	22	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 924 000-036	610 110 101	36"	24	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 924 000-072	610 110 101	72"	24	Receiver, Single Ended	510 160 103/108/109/111/115
TRIPADDLE ITA PATCHCORDS					
7-101 914 000-036	610 110 129	36"	14	ITA, Single Ended	510 161 103/108/109/111/115
7-101 914 000-072	610 110 129	72"	14	ITA, Single Ended	510 161 103/108/109/111/115
7-103 922 000-036	610 110 108	36"	22	ITA, Single Ended	510 161 103/108/109/111/115
7-103 922 000-072	610 110 108	72"	22	ITA, Single Ended	510 161 103/108/109/111/115
7-103 924 000-036	610 110 108	36"	24	ITA, Single Ended	510 161 103/108/109/111/115
7-103 924 000-072	610 110 108	72"	24	ITA, Single Ended	510 161 103/108/109/111/115
TRIPADDLE ITA PATCHCORD JUMPERS (DOUBLE ENDED)					
7-101 914 101-006	610 110 129	6"	14	ITA, Double Ended	510 161 103/108/109/111/115
7-103 922 103-006	610 110 108	6"	22	ITA, Double Ended	510 161 103/108/109/111/115
7-103 924 103-006	610 110 108	6"	24	ITA, Double Ended	510 161 103/108/109/111/115

TriPaddle Receiver Twisted Pair Patchcord				TriPaddle ITA Twisted Pair Patchcord	
Part #	Contact Used	Length	AWG	Description	Used in Module
TRIPADDLE RECEIVER TWISTED PAIR PATCHCORDS					
7-104 422 000-036	610 110 101	36"	22	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 422 000-072	610 110 101	72"	22	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 424 000-036	610 110 101	36"	24	Receiver, Single Ended	510 160 103/108/109/111/115
7-104 424 000-072	610 110 101	72"	24	Receiver, Single Ended	510 160 103/108/109/111/115
TRIPADDLE ITA TWISTED PAIR PATCHCORDS					
7-103 422 000-036	610 110 108	36"	22	ITA, Single Ended	510 161 103/108/109/111/115
7-103 422 000-072	610 110 108	72"	22	ITA, Single Ended	510 161 103/108/109/111/115
7-103 424 000-036	610 110 108	36"	24	ITA, Single Ended	510 161 103/108/109/111/115
7-103 424 000-072	610 110 108	72"	24	ITA, Single Ended	510 161 103/108/109/111/115
TRIPADDLE ITA TWISTED PAIR PATCHCORD JUMPERS (DOUBLE ENDED)					
7-103 422 103-006	610 110 108	6"	22	ITA, Double Ended	510 161 103/108/109/111/115
7-103 424 103-006	610 110 108	6"	24	ITA, Double Ended	510 161 103/108/109/111/115

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

Visit VPC's Patchcord Designer to configure USB, Ethernet, D-Sub, etc, patchcords.

TriPaddle Contact Tools

Part # 910 101 102

Crimp Tool Part # 910 101 102 and Locator Part # 910 104 116 and 910 104 118 are used to crimp TriPaddle contacts to 14–16 AWG wire.

For information regarding gauge pins, visit ***vpc.com/gaugepins****.*

Part # 910 104 127

Locator Part # 910 104 127 and Crimp Tool Part # 910 101 103 are used to crimp TriPaddle Receiver contacts to 20–28 AWG wire.

Part # 910 104 107

Locator Part # 910 104 107 and Crimp Tool Part # 910 101 103 are used to crimp TriPaddle ITA contacts to 20–28 AWG wire.

Part # 910 110 102

Extraction Tool Part # 910 110 102 is used to extract Receiver and ITA TriPaddle contacts.

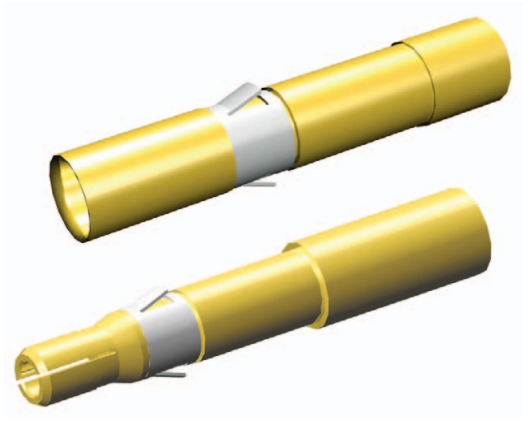
Part #	Description	Used on Contact
CRIMP TOOLS		
910 101 102	Tool, Crimp, 10 Amp TriPaddle, Thermocouple and Micro Power Contacts, Receiver and ITA, Locator Required	610 110 128/129
910 101 103	Tool, Crimp, QuadraPaddle and TriPaddle Contacts, Locator Required	610 110 101/108/167/169
910 104 107	Tool, Locator, TriPaddle ITA	610 110 108/169
910 104 116	Tool, Locator, TriPaddle, Receiver	610 110 128
910 104 118	Tool, Locator, TriPaddle, ITA	610 110 129
910 104 127	Tool, Locator, TriPaddle, Receiver	610 110 101/167
EXTRACTION TOOL		
910 110 102	Tool, Extraction, TriPaddle and Thermocouple, Receiver and ITA	610 110 101/104/108/113 610 110 128/129/167/169

Visit vpc.com for complete instructions on how to use these tools.

Mini Power Contacts and Patchcords

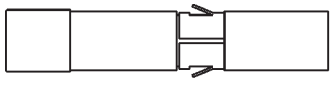
Contact Specifications

Operating Current	50 Amp Max. Continuous • 8 AWG 40 Amp Max. Continuous • 12 AWG 30 Amp Max. Continuous • 14 AWG 25 Amp Max. Continuous • 16 AWG
Contact Resistance	10 mOhms Max.
Mating Force	Insertion • 5.7 lbs Max. [2.58 Kg] Extraction • 5.0 lbs Max. [2.26 Kg]
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 MOhms Min.
Contact Body	Female (RCV) – Brass Male (ITA) – BeCu
Contact Plating	Female (RCV) – 50μ" Au over 100μ" Ni Male (ITA) – 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles

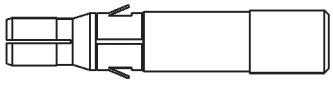


Mini Power Receiver Patchcord

Mini Power ITA Patchcord



Part # 610 116 112



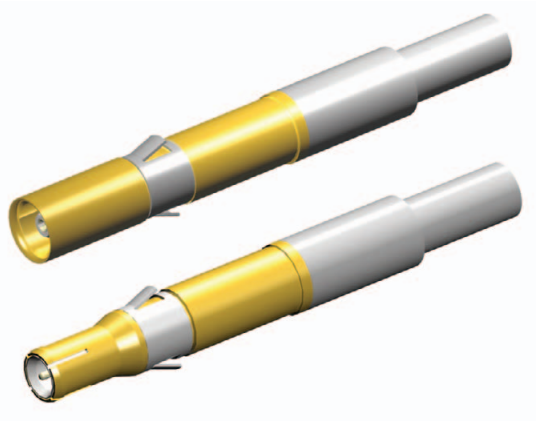
Part # 610 115 124

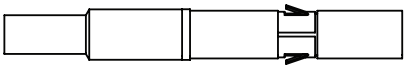
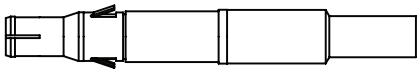
Part #	Contact Used	Length	AWG	Description	Used in Module
MINI POWER RECEIVER CONTACTS					
610 116 112	Mini Power Contact, Receiver, 8 AWG (max), 50μ" Gold, Solder				510 160 102/103/104
MINI POWER ITA CONTACTS					
610 115 124	Mini Power Contact, ITA, 8 AWG (max), 50μ" Gold, Solder				510 161 102/103/104
610 115 125	Mini Power Contact, ITA, 8 AWG (max), 30μ" Gold, Solder				510 161 102/103/104
MINI POWER RECEIVER AND ITA PATCHCORDS					
7-232 912 000-036	610 116 125	36"	12	Receiver, Single Ended	510 160 102/103/104
7-232 912 000-072	610 116 125	72"	12	Receiver, Single Ended	510 160 102/103/104
7-241 912 000-036	610 116 130	36"	12	ITA, Single Ended	510 160 102/103/104
7-241 912 000-072	610 116 130	72"	12	ITA, Single Ended	510 160 102/103/104
MINI POWER EXTRACTION TOOL					
910 112 104	Tool, Extraction, Mini Power/Mini Coaxial Contacts, Receiver and ITA				

50 Ohm Mini Coaxial Contacts and Patchcords

Contact Specifications

Characteristic Impedance	50 Ohms
Frequency Range	DC to 1 GHz
Insertion Loss	1.2 dB @ 1 GHz 1.02 dB @ 500 MHz
VSWR	≤ 1.06 @ 1 GHz
Operating Current	0.5 Amp Max. Continuous
Contact Resistance	5 mOhms Max.
Mating Force	1.5 lbs Max. [0.68 Kg]
Dieclectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 mOhms Min.
Contact Body	Female & Male (RCV & ITA) – shield – Brass, center conductor – BeCu
Contact Plating	Center conductor – 60μ" Au over 100μ" Ni; Shield – 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles



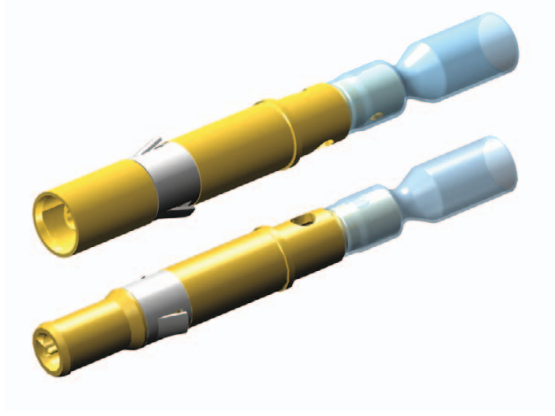
Mini Coaxial Receiver Patchcord	Mini Coaxial ITA Patchcord
	
Part # 610 104 114	Part # 610 103 115

Part #	Contact Used	Length	AWG	Description	Used in Module
MINI COAXIAL RECEIVER CONTACTS					
610 104 114	Mini Coaxial Contact, Receiver, RG316				510 160 102/103/104
610 104 140	Mini Coaxial Contact, Receiver, Two 0.025" Square Posts, Wire Wrap				510 160 102/103/104
610 104 141	Mini Coaxial Contact, Receiver, RG178				510 160 102/103/104
MINI COAXIAL ITA CONTACTS					
610 103 115	Mini Coaxial Contact, ITA, RG316				510 161 102/103/104
610 103 129	Mini Coaxial Contact, ITA, Two 0.025" Square Posts, Wire Wrap				510 161 102/103/104
610 103 130	Mini Coaxial Contact, ITA, RG178				510 161 102/103/104
610 103 136	Mini Coaxial Contact, ITA, 24 AWG				510 161 102/103/104
610 103 150	Mini Coaxial Contact, ITA, Two 0.025" Round Posts for PCB, 0.075" Spacing				510 161 102/103/104
610 103 161	Mini Coaxial Contact, ITA, 24 and 26 AWG Twisted Pair				510 161 102/103/104
MINI COAXIAL RECEIVER PATCHCORDS					
7-332 116 000-036	610 104 114	36"	RG316	Receiver, Single Ended	510 160 102/103/104
7-334 178 000-036	610 104 141	36"	RG178	Receiver, Single Ended	510 160 102/103/104
MINI COAXIAL ITA PATCHCORDS					
7-331 116 000-036	610 103 115	36"	RG316	ITA, Single Ended	510 161 102/103/104
7-333 178 000-036	610 103 130	36"	RG178	ITA, Single Ended	510 161 102/103/104
7-335 924 000-036	610 103 136	36"	24	ITA, Single Ended	510 161 102/103/104

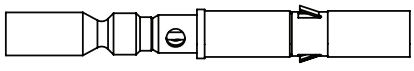
50 Ohm Mini Coaxial Solder Sleeve Contacts and Patchcords

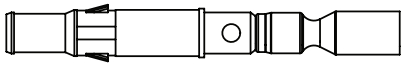
Contact Specifications

Characteristic Impedance	50 Ohms
Frequency Range	DC to 2 GHz
Insertion Loss	≤ .05 dB @ 500 MHz ≤ -0.3 dB @ 2 GHz
VSWR	≤ 1.2 @ 2 GHz
Operating Current	0.5 Amp Max. Continuous
Contact Resistance	5 mOhms Max.
Mating Force	1.5 lbs Max. [0.68 Kg]
Dieclectric Withstanding Voltage (DWV)	1500 VDC Min.
Insulation Resistance	1000 mOhms Min.
Contact Body	Female & Male (RCV & ITA) – shield – Brass, center conductor – BeCu
Contact Plating	Center conductor – 60μ" Au over 100μ" Ni; Shield – RCV • 30μ" Au over 100μ" Ni ITA • 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles



Mini Coaxial Solder Sleeve Receiver Patchcord	Mini Coaxial Solder Sleeve ITA Patchcord





Part # 610 104 142	Part # 610 103 140

Part #	Contact Used	Length	Wire	Description	Used in Module
MINI COAX SOLDER SLEEVE RECEIVER CONTACT					
610 104 142	Mini Coaxial Contact, Receiver, Solder Sleeve, RG316 and RG178				510 160 102/103/104
MINI COAX SOLDER SLEEVE ITA CONTACT					
610 103 140	Mini Coaxial Contact, ITA, Solder Sleeve, RG316 and RG178				510 161 102/103/104
MINI COAX SOLDER SLEEVE RECEIVER PATCHCORDS					
7-338 116 000-036	610 104 142	36"	RG316	Receiver, Single Ended	510 160 102/103/104
7-338 116 000-072	610 104 142	72"	RG316	Receiver, Single Ended	510 160 102/103/104
7-338 178 000-036	610 104 142	36"	RG178	Receiver, Single Ended	510 160 102/103/104
7-338 178 000-072	610 104 142	72"	RG178	Receiver, Single Ended	510 160 102/103/104
MINI COAX SOLDER SLEEVE ITA PATCHCORDS					
7-339 116 000-036	610 103 140	36"	RG316	ITA, Single Ended	510 161 102/103/104
7-339 116 000-072	610 103 140	72"	RG316	ITA, Single Ended	510 161 102/103/104
7-339 178 000-036	610 103 140	36"	RG178	ITA, Single Ended	510 161 102/103/104
7-339 178 000-072	610 103 140	72"	RG178	ITA, Single Ended	510 161 102/103/104

Mini Coaxial Contact Tools

Part # 910 101 115

Crimp Tool Part # 910 101 115 is used to crimp the crimp ring to the contact of the Mini Coax contacts.

Part # 910 121 144

Solder Kit Part # 910 121 144 includes a Raychem Holding Fixture and Adapter which provides a holding fixture for soldering Mini Coax Solder Sleeve contacts.

Part # 910 121 156

Inspection Depth Gauge Part # 910 121 156 is used to verify the depth setting of the center conductor of the Mini Coax contact.

Part # 910 121 119

Center Conductor Forming Tool Part # 910 121 119 forms or closes the center conductor pin on the receiver Mini Coax contact. It is used before patchcord assembly.

Part # 910 121 131

Weight Gauge Kit Part # 910 121 131 is used to form the receiver contacts so the engagement forces are exact.

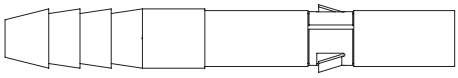
Part #	Description	Used in Contact
CRIMP & EXTRACTION TOOLS		
910 101 115	Tool, Crimp, Coaxial Contacts	610 103 115/130/161 & 610 104 114/141
910 101 118	Tool, Crimp, Coaxial Contacts, ITA, 24 AWG Wire	610 103 136/161
910 104 128	Tool, Locator, Coaxial Contacts, 24 AWG Wire	610 103 136/161
FORMING TOOLS		
910 121 126	Tool, Outer Shield Conductor Forming (ITA–forms or closes shield)	610 103 115/129/130/136/140/150/161
910 121 142	Tool, Outer Shield Conductor Expanding, Mini Coaxial, ITA	610 103 115/129/130/136/140/150/161
910 121 143	Tool, Center Conductor Enlarging, Mini Coaxial, Receiver	610 104 114/141
INSPECTION TOOLS		
910 121 131	Tool, Weight Gage Kit, Mini Coaxial, Receiver	610 104 114/140/141/142
910 121 155	Tool, Weight Gage Kit, Mini Coaxial, ITA	610 103 115/129/130/136/140/150/161
910 121 156	Tool, Inspection Depth Gage, Mini Coaxial, Receiver	610 104 114/140/141/142
910 121 157	Tool, Inspection Depth Gage, Mini Coaxial, ITA	610 103 115/129/130/136/140/150/161
MISCELLANEOUS TOOLS		
910 121 119	Tool, Center Conductor Forming, Mini Coaxial, Receiver (used before assembly)	610 104 114/141
910 121 144	Tool, Solder Kit, Mini Coaxial Contacts with Solder Sleeves (includes Raychem Holding Fixture (AD-1319)	610 103 140 & 610 104 142
910 121 149	Tool, Adapter for Raychem Holding Fixture (AD-1319-9)	610 103 140 & 610 104 142
910 121 160	Tool, Steinel Heat Gun with Nozzle – 110V	610 103 140 & 610 104 142
910 121 167	Tool, Steinel Heat Gun with Nozzle – 220V	610 103 140 & 610 104 142
EXTRACTION TOOL		
910 112 104	Tool, Extraction, Mini Power/Mini Coaxial Contacts, Receiver and ITA	*Used with all Mini Power, Mini Coaxial and Mini Pneumatic Contacts.*

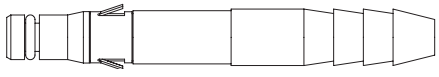
Visit vpc.com for complete instructions on how to use these tools.

Mini Pneumatic Contacts

Contact Specifications • 1/8" ID [4 mm]

Pressure/Vacuum Rated	100 psi (6.9 Bar)
Contact Body	Nickel Plated Brass
Cycle Life	20,000 cycles





Part # 610 131 108	Part # 610 132 106

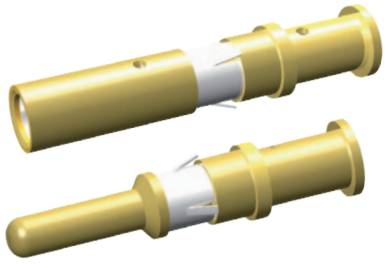
Part #	Description	Used in Module
PNEUMATIC RECEIVER CONTACTS		
610 131 108	Mini Pneumatic Contact, Receiver, Hose Barb, 0.125" (4.0mm) ID, Fits Mini Coaxial or Mini Power Modules	510 160 102/103/104
PNEUMATIC ITA CONTACTS		
610 132 106	Mini Pneumatic Contact, ITA, Hose Barb, 0.125" (4.0mm) ID, Fits Mini Coaxial or Mini Power Modules	510 161 102/103/104
EXTRACTION TOOL		
910 112 104	Tool, Extraction, for Mini Pneumatic Contacts	

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

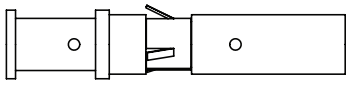
Micro Power Contacts and Patchcords

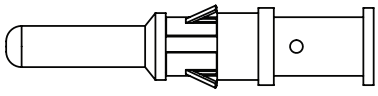
Contact Specifications

Current Rating	22 Amp Continuous (See T-Rise Graph Below)
Dielectric Withstanding Voltage (DWV)	1500 VDC Min.
Contact Resistance	1.5 mOhms Max.
Mating Force	2 lbs Max. [0.90 Kg]
Cycle Life	10,000 cycles



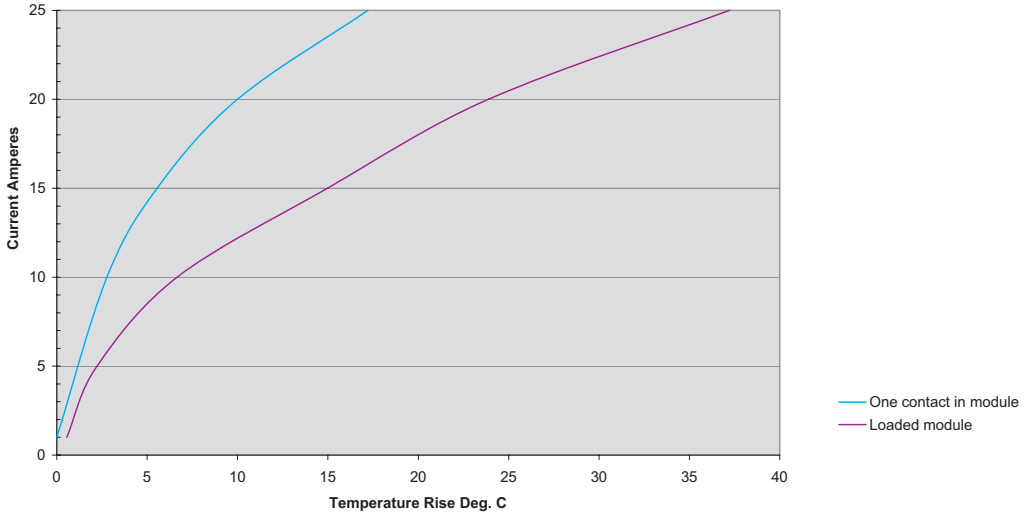
Micro Power Receiver Patchcord	Micro Power ITA Patchcord





Part # 610 142 101	Part # 610 143 101

Micro Power Contact 610 142 101/610 143 101
T-Rise Test (12 AWG)

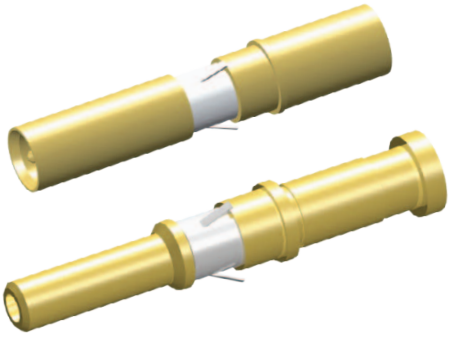


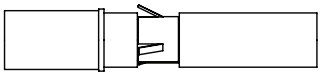
Part #	Contact Used	Length	Wire	Description	Used in Module
MICRO POWER RECEIVER CONTACTS					
610 142 101	Micro Power Contact, Receiver, 14 AWG, Crimp				510 160 106/107/111/112
610 142 102	Micro Power Contact, Receiver, PCB Mount				510 160 106/107/111/112
MICRO POWER ITA CONTACTS					
610 143 101	Micro Power Contact, ITA, 14 AWG, Crimp				510 161 106/107/111
MICRO POWER RECEIVER AND ITA PATCHCORDS					
7-252 912 000-036	610 142 101	36"	12 AWG	Receiver, Single Ended	510 160 106/107/111/112
7-252 912 000-072	610 142 101	72"	12 AWG	Receiver, Single Ended	510 160 106/107/111/112
7-251 912 000-036	610 143 101	36"	12 AWG	ITA, Single Ended	510 161 106/107/111
7-251 912 000-072	610 143 101	72"	12 AWG	ITA, Single Ended	510 161 106/107/111

Micro Coaxial Contacts

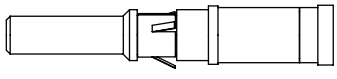
Contact Specifications

Characteristic Impedance	50 Ohm 75 Ohm • for RG 179
Frequency Range	DC – 3 GHz • for RG 316, RG 178 DC – 10.5 GHz • for RG 316DS DC – 1 GHz • for RG 179
Contact Isolation	-90 dB minimum
VSWR	1.22 @ 3 GHz
Mating Force	1.5 lbs Max. [0.68 Kg]
Insertion Loss	– √f(GHz) x .06 dB
Dielectric Withstanding Voltage (DWV)	1500 V RMS
Cycle Life	10,000 cycles



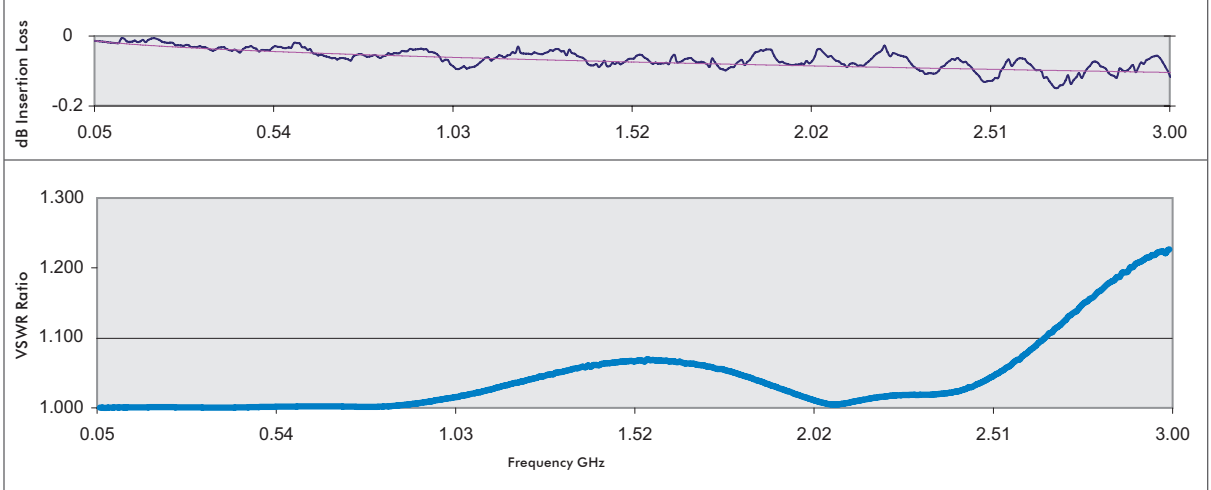


Part # 610 140 XXX



Part # 610 141 XXX

Micro Coax RF Response
50 Ohm impedance



Part #	Contact Used	Length	Wire	Description	Used in Module
MICRO COAXIAL RECEIVER CONTACTS					
610 140 101				Micro Coaxial Contact, Receiver, RG 316, Crimp	510 160 106/107/111/112
610 140 102				Micro Coaxial Contact, Receiver, RG 178, Crimp	510 160 106/107/111/112
610 140 103				Micro Coaxial Contact, Receiver, RG 179, Crimp	510 160 106/107/111/112
610 140 104				Micro Coaxial Contact, Receiver, RG 316 Double Shield, Solder	510 160 106/107/111/112
MICRO COAXIAL ITA CONTACTS					
610 141 101				Micro Coaxial Contact, ITA, RG 316, Crimp	510 161 106/107/111
610 141 102				Micro Coaxial Contact, ITA, RG 178, Crimp	510 161 106/107/111
610 141 103				Micro Coaxial Contact, ITA, RG 179, Crimp	510 161 106/107/111
610 141 104				Micro Coaxial Contact, ITA, RG 316 Double Shield, Solder	510 161 106/107/111

Micro Coaxial Patchcords

Micro Coaxial Receiver Patchcord

Micro Coaxial ITA Patchcord

Part #	Contact Used	Length	Wire	Description	Used in Module
MICRO COAXIAL RECEIVER PATCHCORDS					
7-362 116 000-036	610 140 101	36"	RG316	Receiver, Single Ended (3 GHz)	510 160 106/107/111/112
7-362 116 000-072	610 140 101	72"	RG 316	Receiver, Single Ended (3 GHz)	510 160 106/107/111/112
7-364 178 000-036	610 140 102	36"	RG178	Receiver, Single Ended (3 GHz)	510 160 106/107/111/112
7-364 178 000-072	610 140 102	72"	RG178	Receiver, Single Ended (3 GHz)	510 160 106/107/111/112
7-366 179 000-036	610 140 103	36"	RG179	Receiver, Single Ended (1 GHz), 75 Ohm	510 160 106/107/111/112
7-366 179 000-072	610 140 103	72"	RG179	Receiver, Single Ended (1 GHz), 75 Ohm	510 160 106/107/111/112
7-368 117 000-036	610 140 104	36"	RG316DS	Receiver, Single Ended (10.5 GHz)	510 160 106/107/111/112
7-368 117 000-072	610 140 104	36"	RG316DS	Receiver, Single Ended (10.5 GHz)	510 160 106/107/111/112
MICRO COAXIAL ITA PATCHCORDS					
7-361 116 000-036	610 141 101	36"	RG316	ITA, Single Ended (3 GHz)	510 161 106/107/111
7-361 116 000-072	610 141 101	72"	RG316	ITA, Single Ended (3 GHz)	510 161 106/107/111
7-363 178 000-036	610 141 102	36"	RG178	ITA, Single Ended (3 GHz)	510 161 106/107/111
7-363 178 000-072	610 141 102	72"	RG178	ITA, Single Ended (3 GHz)	510 161 106/107/111
7-365 179 000-036	610 141 103	36"	RG179	ITA, Single Ended (1 GHz), 75 Ohm	510 161 106/107/111
7-365 179 000-072	610 141 103	72"	RG179	ITA, Single Ended (1 GHz), 75 Ohm	510 161 106/107/111
7-367 117 000-036	610 141 104	36"	RG316DS	ITA, Single Ended (10.5 GHz)	510 161 106/107/111
7-367 117 000-072	610 141 104	72"	RG316DS	ITA, Single Ended (10.5 GHz)	510 161 106/107/111

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

Micro Power and Micro Coaxial Contact Tools

Part # 910 101 102

Crimp Tool Part # 910 101 102 and a Locator are used to crimp Micro Power contacts to 12 AWG wire.

For information regarding gauge pins, visit ***vpc.com/gaugepins****.*

Part # 910 101 131-RG178 • 910 101 132-RG179/316

Crimp Tool Part # 910 101 131 / 910 101 132 is used to crimp the crimp ring to the contact of the Micro Coax contacts.

Part # 910 112 123

Extraction Tool part # 910 112 123 is used to extract Receiver and ITA Micro Power and Micro Coax contacts.

Part # 910 121 179-Receiver
910 121 180-ITA

Inspection Depth Gauge Part # 910 121 179is used to verify the depth setting of the center conductor of the Micro Coax contact.

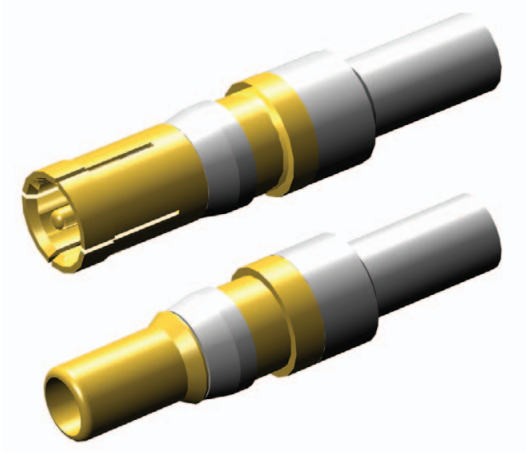
Part #	Description	Used in Contact
CRIMP TOOLS		
910 101 102	Tool, Crimp, 10 Amp TriPaddle, Thermocouple and Micro Power Contacts, Receiver and ITA, Locator Required	610 142 101 & 610 143 101
910 101 131	Tool, Crimp, Micro Coaxial RG178, Receiver and ITA	610 140 102 & 610 141 102
910 101 132	Tool, Crimp, Micro Coaxial RG179 & RG316, Receiver and ITA	610 140 101/103, 610 141 101/103
910 104 144	Tool, Locator, Micro Power, ITA	610 143 101
910 104 145	Tool, Locator, Micro Power, Receiver	610 142 101
INSPECTION TOOLS		
910 121 179	Tool, Inspection Depth Gage, Micro Coaxial, Receiver	610 140 101/102/103/104
910 121 180	Tool, Inspection Depth Gage, Micro Coaxial, ITA	610 141 101/102/103/104
EXTRACTION TOOL		
910 112 123	Tool, Extraction, Micro Power/Micro Coaxial Contacts	*Used with all Micro Power and Micro Coaxial Contacts.*
SOLDER FIXTURE		
910 121 178	Tool, Soldering Fixture, Micro Coaxial, Receiver and ITA	610 140 101/102/103/104

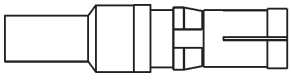
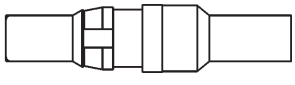
Visit vpc.com for complete instructions on how to use these tools.

75 Ohm HD Coaxial Patchcords and Contacts

Contact Specifications

Characteristic Impedance	75 Ohms
Frequency Range	DC to 2 GHz
Contact Resistance	Center contact – 5 mOhms Outer shield – 3 mOhms
Insertion Loss	-.5 dB Max
Dielectric Withstanding Voltage (DWV)	800 VRMS
Operating Current	3.0 Amp DC Max. Continuous
VSWR	≤ 1.31 @ 2 GHz
Insulation Resistance	1000 MOhms Min.
Contact Body	Female & Male Shield • Brass Center Contact • BeCu
Mating Force	2.0 lbs Max. [.91 kg]
Contact Plating	Center Conductor Shield • 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles



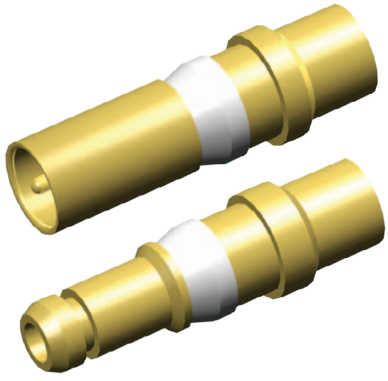
75 Ohm Coaxial Receiver Patchcord	75 Ohm Coaxial ITA Patchcord
	
Part # 610 102 133	Part # 610 102 132

Part #	Contact Used	Length	AWG	Description	Used in Module
75 OHM HD COAXIAL RECEIVER CONTACT					
610 102 133	Coaxial Contact, Receiver, 75 Ohm HD, SM59/U, 2GHz, Crimp				510 160 114/115
75 OHM HD COAXIAL ITA CONTACT					
610 102 132	Coaxial Contact, ITA, 75 Ohm HD, SM59/U, 2GHz, Crimp				510 161 114/115
75 OHM HD COAXIAL RECEIVER AND ITA PATCHCORDS					
7-412 873 000-036	610 102 133	36"	SM59/U	Receiver, Single Ended	510 161 114/115
7-412 873 000-072	610 102 133	72"	SM59/U	Receiver, Single Ended	510 161 114/115
7-411 873 000-036	610 102 132	36"	SM59/U	ITA, Single Ended	510 160 114/115
7-411 873 000-072	610 102 132	72"	SM59/U	ITA, Single Ended	510 160 114/115
CRIMP TOOLS					
910 104 139	Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial, Receiver and ITA Contacts				
EXTRACTION TOOL					
910 112 117	Tool, Extraction, for 75 Ohm and 20 GHz Receiver and ITA Contacts				

20/26 GHz Coaxial Patchcords and Contacts

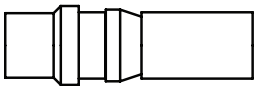
Contact Specifications

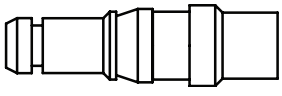
Characteristic Impedance	50 Ohms
Frequency Range	DC to 26 GHz
Insertion Loss	.06 x√f(GHz) dB
VSWR	1.25 for 2 - 18 GHz (w/ TF402) 1.30 for 18 - 26 GHz (w/ TF402)
Operating Current	5 Amp DC Max. Continuous
Contact Isolation	> -90 dB over Frequency Range
Mating Force	4.0 lbs Max. [1.81 kg]
Dielectric Withstanding Voltage (DWV)	800 V RMS Shield to center contact 1000 V RMS
Insulation Resistance	2000 MOhms Min.
Contact Body	Female & Male Plug (RCV & ITA) – shield – Brass, center conductor – BeCu
Contact Plating	Male Plug (ITA) – 50μ" Au over 100μ" Ni; Female (RCV) – 50μ" Au over 100μ" Ni
Cycle Life	20,000 cycles



20/26 GHz Coaxial Receiver Patchcord • TFlex 402

20/26 GHz Coaxial ITA Patchcord • TFlex 402





Part # 610 102 119

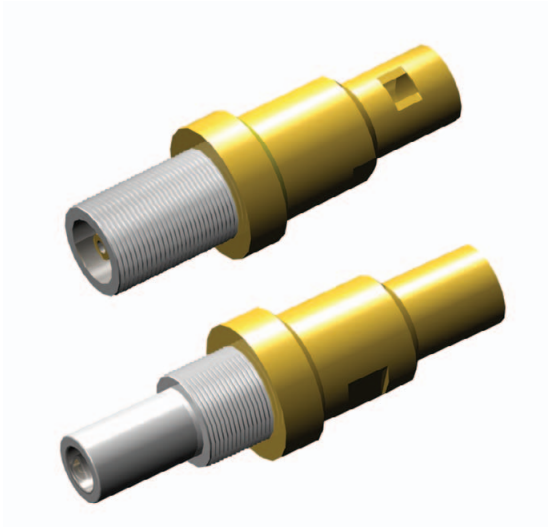
Part # 610 102 118

Part #	Contact Used	Length	Wire	Description	Used in Module
20/26 GHZ COAXIAL RECEIVER CONTACTS					
610 102 119	Coaxial Contact, Receiver, 20/26 GHz, Solder for TFlex 402, 20 GHz, available only in patchcords				510 160 114/115
20/26 GHZ COAXIAL ITA CONTACTS					
610 102 118	Coaxial Contact, ITA, 20/26 GHz, Solder for TFlex 402, 20 GHz, available only in patchcords				510 161 114/115
20/26 GHZ COAXIAL RECEIVER AND ITA PATCHCORDS					
7-388 102 000-036	610 102 119	36"	TFlex 402	Receiver, Single Ended (20/26 GHz)	510 160 114/115
7-388 102 000-072	610 102 119	72"	TFlex 402	Receiver, Single Ended (20/26 GHz)	510 160 114/115
7-387 102 000-036	610 102 118	36"	TFlex 402	ITA, Single Ended (20/26 GHz)	510 161 114/115
7-387 102 000-072	610 102 118	72"	TFlex 402	ITA, Single Ended (20/26 GHz)	510 161 114/115
EXTRACTION TOOL					
910 112 117	Tool, Extraction, 75 Ohm and 20/26 GHz Coaxial Contacts, Receiver and ITA				

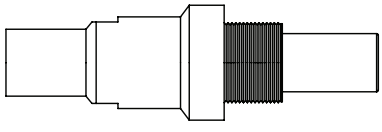
Twinaxial Contacts and Patchcords

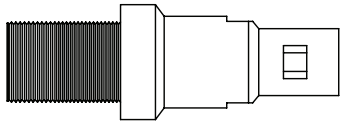
Contact Specifications

Operating Current	30 Amp Max. Continuous (480 RMS)
Contact Resistance	Center contact is < 6.5 mOhms; Intermediate contact is < 3 Ohms; Outer contact is < 3.5 mOhms
Insertion Loss	0.044 dB @ 0.2 GHz
Maximum VSWR	Approximately 1.1:1 @ 100 MHz
Insulation Resistance	106 mOhms min.
Mating Force	3.5 lbs Max. [1.59 Kg]
Contact Body	Outer Shell • Brass Inner Shield • Bronze Male Contact • Brass
Contact Plating	40 µ" Au over 130 µ" Ni



Twinaxial Receiver Patchcord	Twinaxial ITA Patchcord





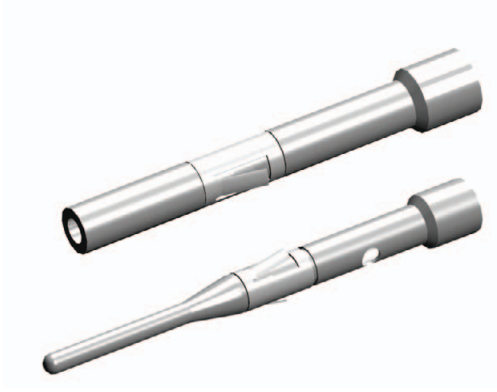
Part # 610 113 144	Part # 610 113 145

Part #	Contact Used	Length	AWG	Description	Used in Module
TWINAXIAL RECEIVER CONTACT					
610 113 144	Twinaxial Contact, Receiver				510 160 109
TWINAXIAL ITA CONTACT					
610 113 145	Twinaxial Contact, ITA				510 161 109
TWINAXIAL RECEIVER AND ITA PATCHCORDS					
7-402 423 000-036	610 113 144	36"	22 AWG T/P shield	Receiver, Single Ended	510 160 109
7-402 423 000-072	610 113 144	72"	22 AWG T/P shield	Receiver, Single Ended	510 160 109
7-401 423 000-036	610 113 145	36"	22 AWG T/P shield	ITA, Single Ended	510 161 109
7-401 423 000-072	610 113 145	72"	22 AWG T/P shield	ITA, Single Ended	510 161 109

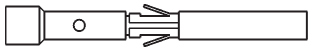
Thermocouple Contacts, Patchcords and Tools

Contact Specifications

ANSI Type	K
Thermocouple Pair Materials	Chromel® Alumel®
Polarity	+/-
Material Type	Base
TC Temperature Range	Chromel® & Alumel® • -200° C to 1250° C
EMF (mV)	-5.97 to +50.63



Thermocouple Receiver Patchcord	Thermocouple ITA Patchcord



Part # 610 113 XXX	Part # 610 113 XXX

Part #	Contact Used	Length	AWG	Description	Used in Module
THERMOCOUPLE RECEIVER CONTACTS					
610 113 131	Thermocouple Contact, Receiver, Chromel				510 160 110
610 113 132	Thermocouple Contact, Receiver, Alumel				510 160 110
THERMOCOUPLE ITA CONTACTS					
610 113 133	Thermocouple Contact, ITA, Chromel				510 161 110
610 113 134	Thermocouple Contact, ITA, Alumel				510 161 110
THERMOCOUPLE RECEIVER PATCHCORDS					
7-410 803 000-036	610 113 131 & 610 110 132	36"	20	Receiver, Chromel & Alumel, Single Ended	510 160 110
7-410 803 000-072	610 113 131 & 610 110 132	72"	20	Receiver, Chromel & Alumel, Single Ended	510 160 110
THERMOCOUPLE ITA PATCHCORDS					
7-409 803 000-036	610 113 133 & 610 110 134	36"	20	Receiver, Chromel & Alumel, Single Ended	510 161 110
7-409 803 000-072	610 113 133 & 610 110 134	36"	20	Receiver, Chromel & Alumel, Single Ended	510 161 110
TOOLS					
910 101 102	Tool, Crimp, 10 Amp TriPaddle, Thermocouple and Micro Power Contacts, Receiver and ITA, Locator Required				
910 104 134	Tool, Locator, Thermocouple, Receiver				
910 104 135	Tool, Locator, Thermocouple, ITA				
910 110 102	Tool, Extraction, TriPaddle and Thermocouple, Receiver and ITA				

NOTE: The Chromel-Alumel thermocouple, with a positive Chromel wire and a negative Alumel wire, is recommended for use in clean oxidizing atmospheres.

High I/O with QuadraPaddle Technology • iCon960

The iCon960 is the next step up for higher I/O requirements. With two 480 QuadraPaddle modules included, this iCon provides 960 signal contacts for both PCB and discrete wiring. The precision engagement mechanism is the same as the standard iCon, providing reliable connections test after test.

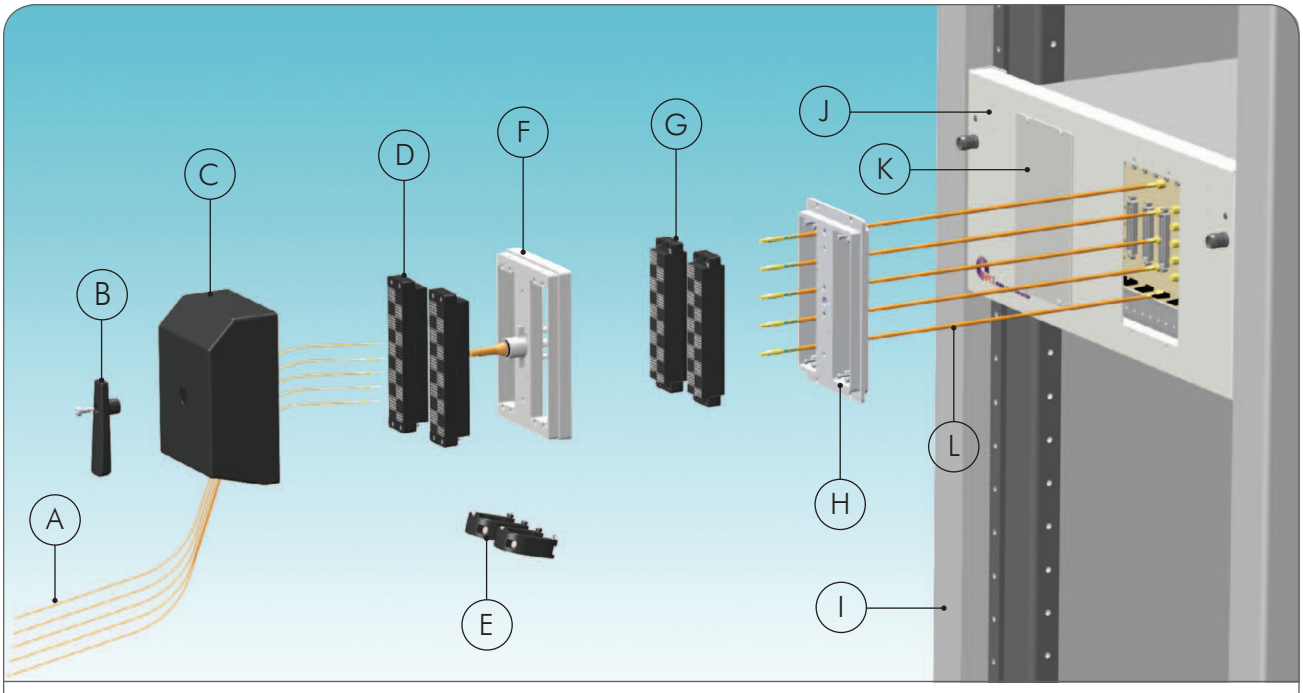
Two 480 Signal QuadraPaddle Modules Included

U-shaped Cable Clamps

QuadraPaddle Modules

iCon960

For more information, visit vpc.com/iCon960



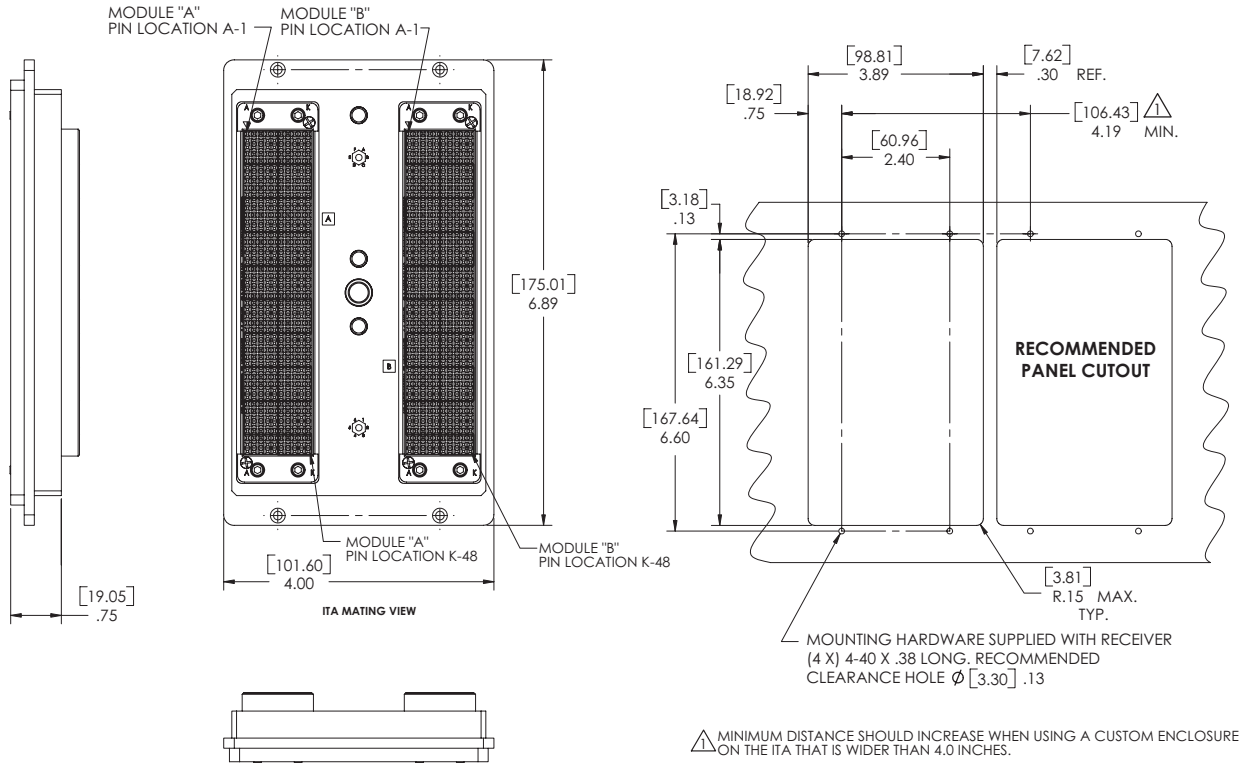
A. ITA Patchcords
B. Engagement Handle
C. iCon960 Enclosure
D. ITA Modules
E. U-shaped Clamp
F. iCon960 ITA Frame
G. Receiver Modules
H. iCon960 Receiver
I. Rack With Instruments
J. Vertical Hinged Mounting Frame
K. iCon960 Cover Plate
L. Receiver Patchcords

Part #	Description
RECEIVER	
310 124 102	Receiver, iCon960 (G) (H) Includes two 480 Position QuadraPaddle Receiver, Fully Loaded with Round Posts (510 150 135)
310 124 103	Receiver, iCon960 (G) (H) Includes two 480 Position QuadraPaddle Receiver Wire Crimp Modules (510 150 116)
310 124 105	Receiver, iCon960, two 192 Position QuadraPaddle Modules (510 150 115) and two 96 Position TriPaddle Modules (510 104 136)
310 124 112	Receiver, iCon960, two QuadraPaddle Modules, Fully Loaded with Twin Female Contacts (510 150 131)
310 124 122	Receiver, iCon960, four 96 Position TriPaddle Modules (510 104 136)
ITA	
410 124 103	ITA, iCon960, two QuadraPaddle Modules, Fully Loaded with Round Posts for PCB Mounting (510 151 108)
410 124 104	ITA, iCon960 *includes* (B) (D) (F) Includes two 480 Position QuadraPaddle ITA Modules (510 151 106)
410 124 105	ITA, iCon960, two 192 Position QuadraPaddle Modules (510 151 105) and two 96 Position TriPaddle Modules (510 108 126)
410 124 122	ITA, iCon960, four 96 Position TriPaddle Modules (510 108 126)
ACCESSORIES	
310 113 461	Keying Pin Kit, iCon/i1, Receiver and ITA
310 113 465	Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions (J)
310 113 466	Cover Plate, iCon960 (K)
310 113 489	Protective Cover, iCon960, Receiver
410 112 775	Enclosure, iCon960, with 2 Cable Clamps (C) (E)
410 112 804	Protective Cover, iCon960, ITA

For more information, visit vpc.com/iCon960

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner

iCon960 Receiver



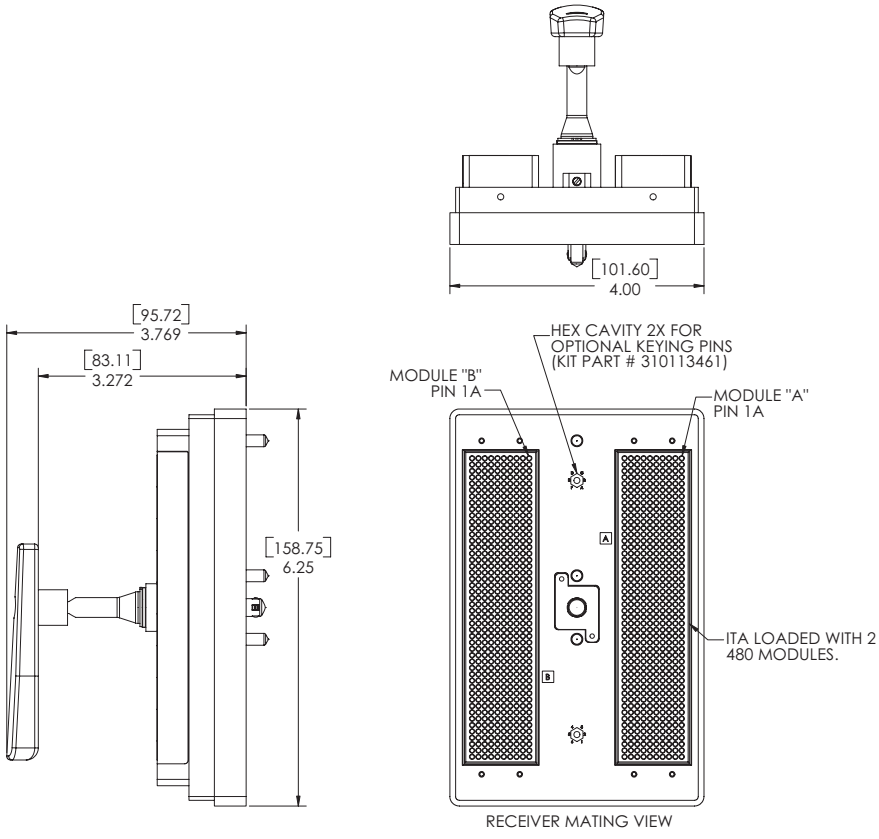
➤ Receiver, iCon960 • **Part # 310 124 103**

Receiver Specifications

Weight	1.3 lbs. [.58 Kg]
Frame Material	Nickel Plated Aluminum Alloy
Hardware Material	Stainless Steel Alloy
Modules Included	510 150 116 (2)
Cycle Life	20,000 cycles
Temperature	-55° C to 100° C

iCon960 includes two 480 position modules to allow a maximum I/O of 960. Receiver is PCB capable.

iCon960 ITA



➤ ITA, iCon960 • **Part # 410 124 104**

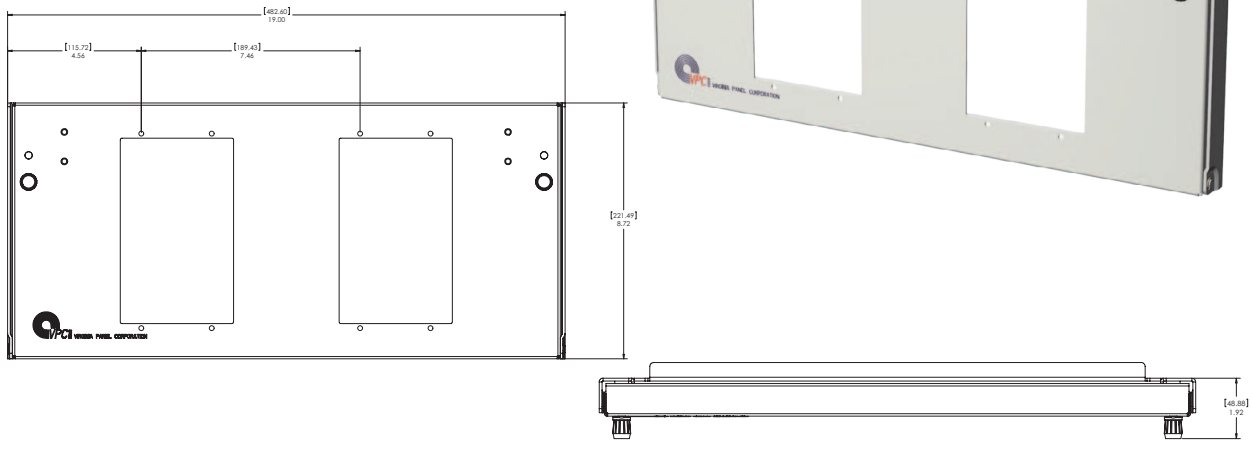
ITA Specifications

Weight	1.3 lbs. [.58 Kg]
Frame Material	Nickel Plated Aluminum Alloy
Hardware	Stainless Steel Alloy
Drive Unit	Beryllium Copper and Stainless Steel
Modules Included	510 151 106 (2)
Cycle Life	20,000 cycles
Temperature	-55° C to 100° C

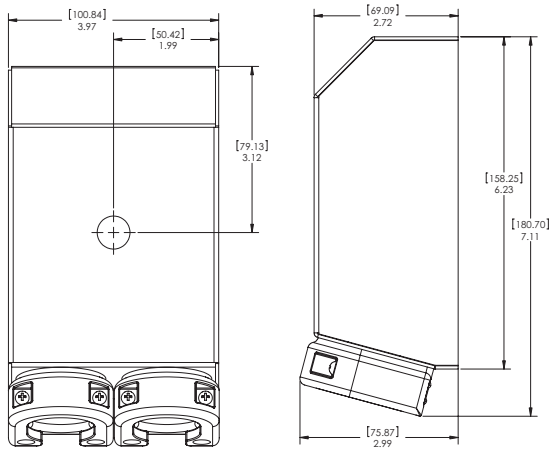
The iCon960 ITA uses the same half-turn quick cam engagement mechanism as the standard iCon Rack & Panel connectors.

iCon960 Accessories

The 5U Vertical Hinged Mounting Frame mounts to standard 19" racks and hinges open to allow access to wiring between the instruments and VPC Receiver. The 2 cutouts are spaced evenly across the panel. iCon960 cover plate sold separately 310113466.



➤ Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions • **Part # 310 113 465**



TECH TIP

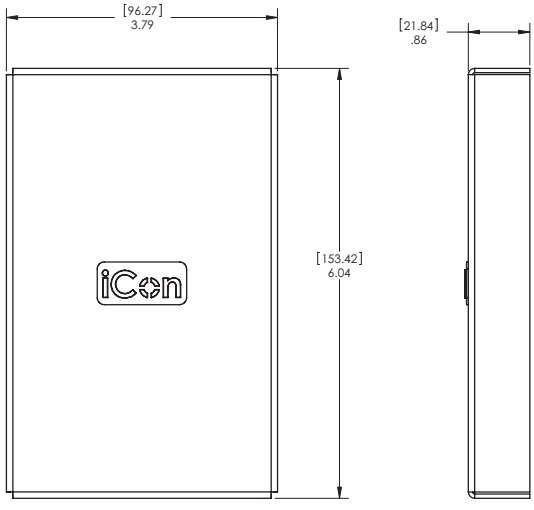
The U-shaped cable clamp is adjustable to accommodate the amount of wires in your cable bundle. For the equation please see our Tech Tip on page 72.

The standard iCon960 enclosure has two U-shaped cable clamps that allow a maximum cable bundle of 1.55" diameter per clamp.

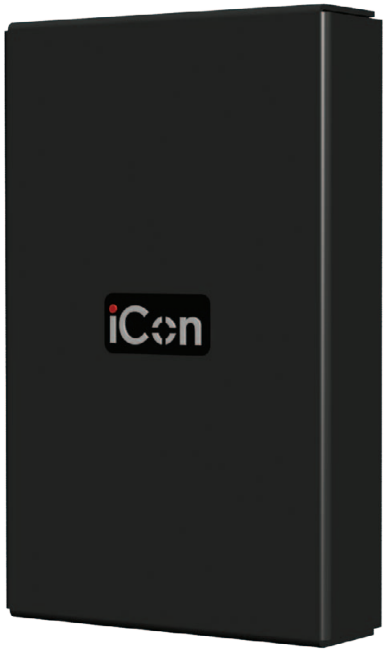
➤ Enclosure, iCon960 with 2 Cable Clamps • **Part # 410 112 775**

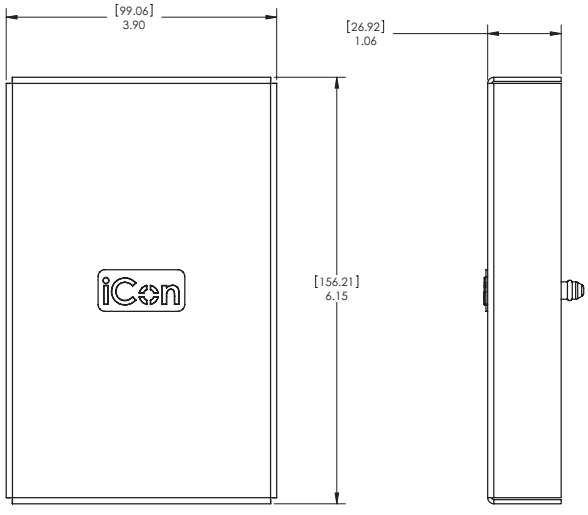
iCon960 Accessories

The ITA protective cover is designed to protect your modules when the ITA is not engaged.



➤ Protective Cover, iCon960, ITA • **Part # 410 112 804**





The receiver protective cover is designed to protect your modules and contacts while the test system is not in use.

➤ Protective Cover, iCon960, Receiver • **Part # 310 113 489**

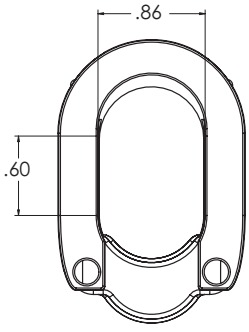
TECH TIP Cable Bundle Wire Information for iCon Family

A formula to calculate the maximum number of wires recommended for a cable bundle is shown below. Using this formula, the table below shows a sampling of the maximum number of wires that will fit in the oblong bushing.

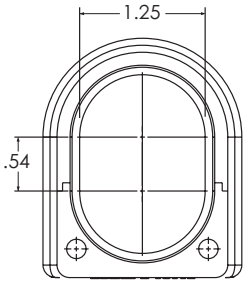
Formula to calculate approximate number of wires in a cable bundle:

$N = (A/d - 1)^2(.907)$		
N = # of Wires	"A" = Inside Diameter of Converted Oblong Bushing	d = Outside Diameter of Wire

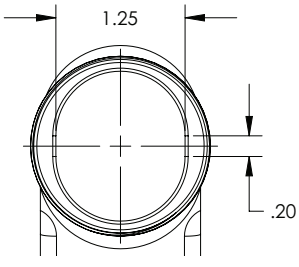
** Oblong Opening Area Converted to Simple Diameter*



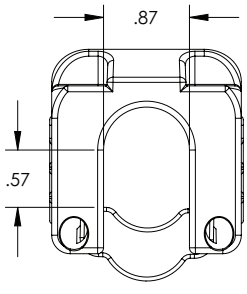
iCon Oblong Bushing Effective Diameter* (A) = 1.21"



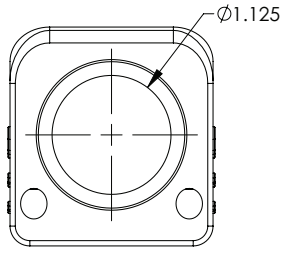
iCon with Large Cable Clamp & iCon960 Oblong Bushing Effective Diameter* (A) = 1.55"



iConEMI and iCon with Threaded Coupling Adapter Oblong Bushing Effective Diameter* (A) = 1.37"



i1 Oblong Bushing Effective Diameter* (A) = 1.07"



i1EMI Oblong Bushing Effective Diameter* (A) = 1.125"

Wire Type	Outside Diameter	iCon # Wires	Large iCon # Wires	iCon960 # Wires	iConEMI # Wires	i1 # Wires	i1EMI # Wires
20 AWG Signal – Teflon	.057	371	622	1244	481	286	318
10 AWG Power – PVC	.142	51	89	178	67	38	43
RG316 Coaxial – 50 Ohm	.098	116	199	398	152	89	99

NOTE: Addition of shrink tubing or braid will reduce maximum number of wires through bushing.

NOTE: If the wiring bundle is too small to secure with the adjustable bushing, remove the clamp assembly within the bushing by removing the two adjustment screws. Reverse the direction of the clamp assembly and secure with the two screws. This provides a reduced diameter within the bushing and allows smaller wire bundles to be held securely.

NOTE: The number of wires that can fit into the Oblong Effective Diameter listed for the i1EMI and iConEMI may be affected by the mating component.

TECH TIP

iCon PCB Mounting Overview

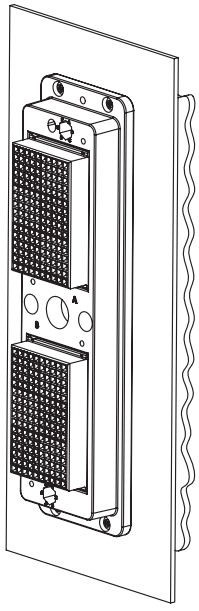


Figure A. iCon Receiver with two 160 pin QuadraPaddle modules. Each module is loaded with twin female contacts, Part # 610 138 100. Each module has twin male headers connecting the female contacts to the PCB plated thru holes.

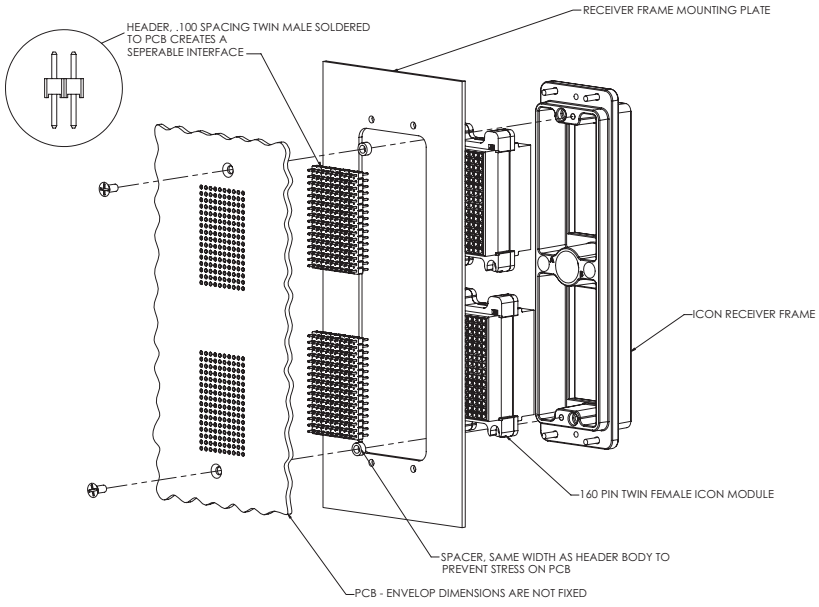

HEADER, .100 SPACING TWIN MALE SOLDERED TO PCB CREATES A SEPERABLE INTERFACE
RECEIVER FRAME MOUNTING PLATE
ICON RECEIVER FRAME
160 PIN TWIN FEMALE ICON MODULE
SPACER, SAME WIDTH AS HEADER BODY TO PREVENT STRESS ON PCB
PCB - ENVELOP DIMENSIONS ARE NOT FIXED

Figure B. A PCB can be mounted directly to the back of the iCon receiver; however, VPC recommends mounting the i1 receiver to a panel and then mounting the PCB to the other side of the panel using stand-offs, as shown. This will reduce the stress on the PCB when the i1 is mated and un-mated.

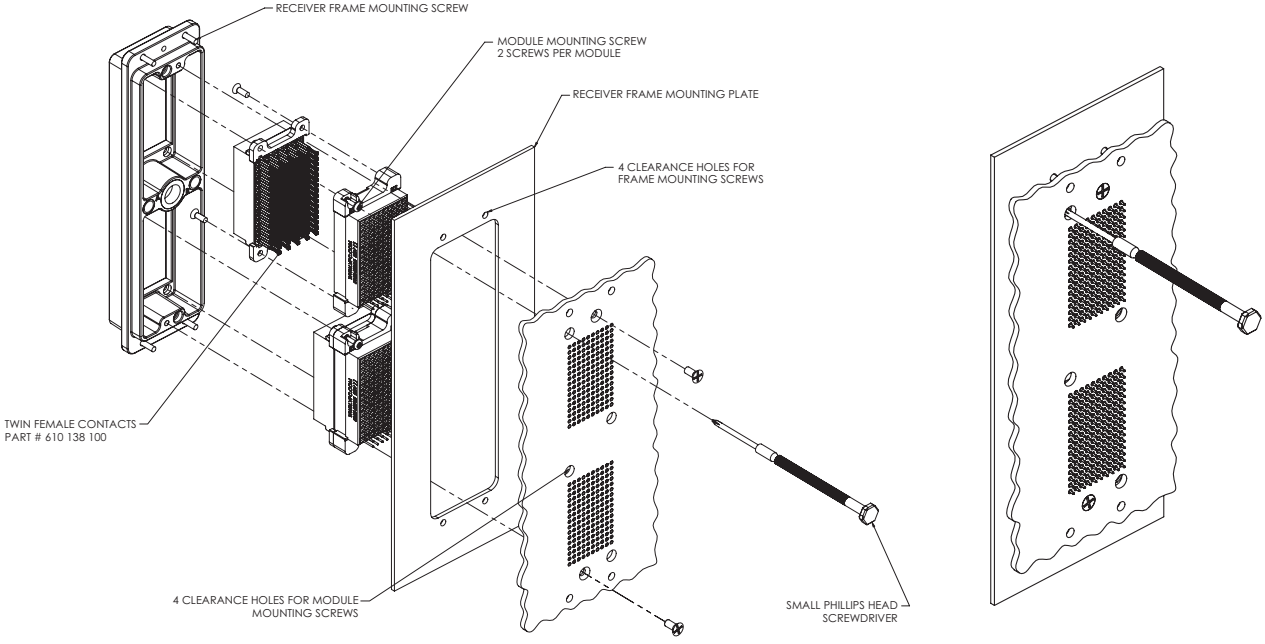

RECEIVER FRAME MOUNTING SCREW
MODULE MOUNTING SCREW 2 SCREWS PER MODULE
RECEIVER FRAME MOUNTING PLATE
4 CLEARANCE HOLES FOR FRAME MOUNTING SCREWS
TWIN FEMALE CONTACTS PART # 610 138 100
4 CLEARANCE HOLES FOR MODULE MOUNTING SCREWS
SMALL PHILLIPS HEAD SCREWDRIVER

Figure C. Additional hole cutouts shown allow access to the module mounting screws. The user can remove the PCB and modules without de-soldering the individual solder tails. Additional clearance holes allow frame mounting screws to protrude without interfering with PCB.

TECH TIP i1 PCB Mounting Overview

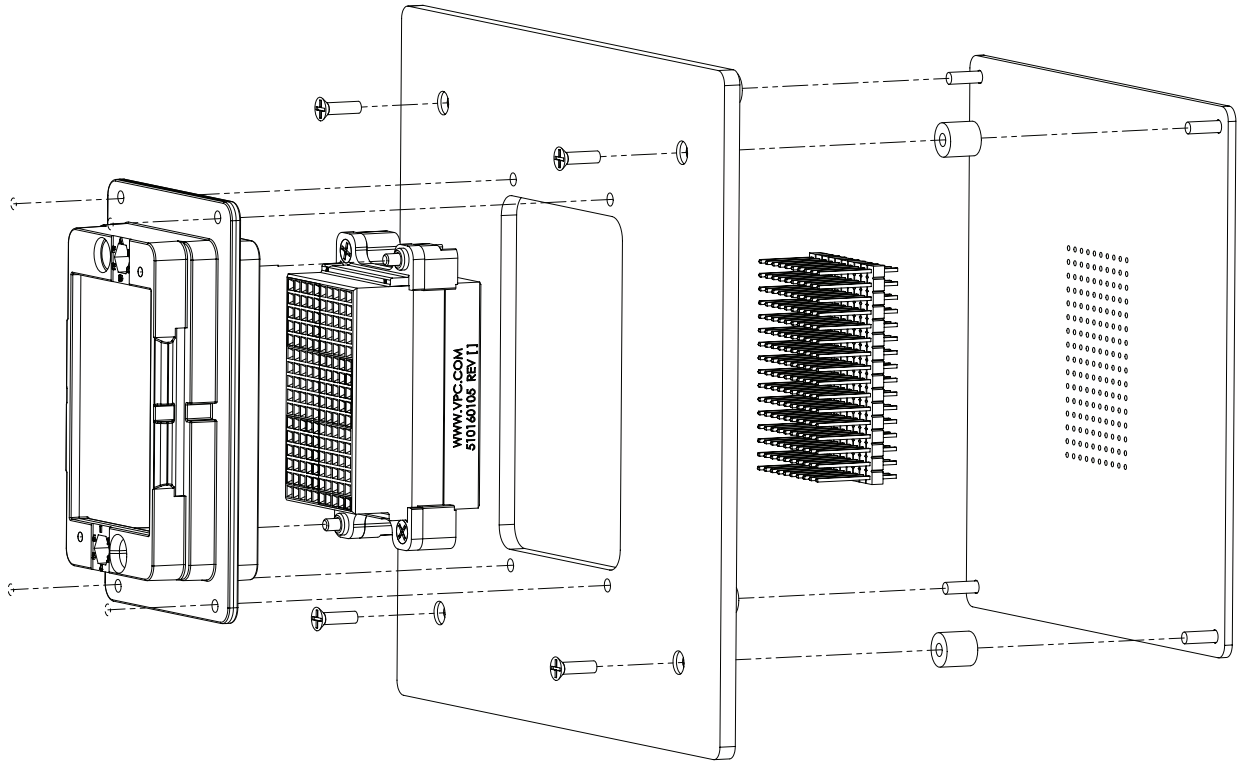


Figure D. A PCB can be mounted directly to the back of the i1 receiver; however, VPC recommends mounting the i1 receiver to a panel and then mounting the PCB to the other side of the panel using stand-offs, as shown. This will reduce the stress on the PCB when the i1 is mated and un-mated.

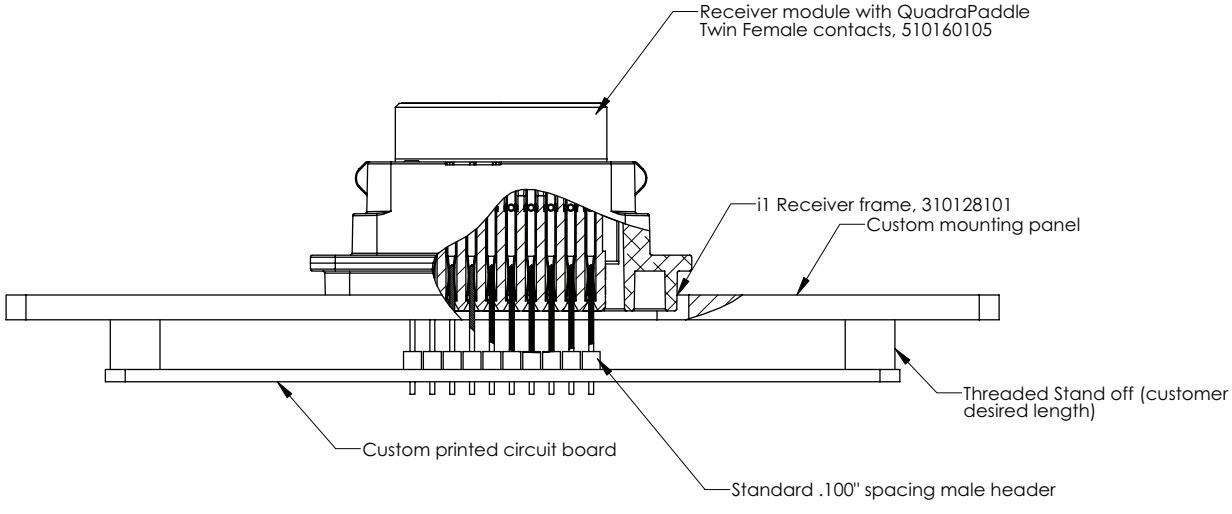

Receiver module with QuadraPaddle Twin Female contacts, 510160105
i1 Receiver frame, 310128101
Custom mounting panel
Threaded Stand off (customer desired length)
Custom printed circuit board
Standard .100" spacing male header

Figure E. Side view shows the PCB panel mounted with stand-offs to the i1 receiver with VPC QuadraPaddle® Twin Female contacts.

Cross Reference for Receiver Contacts and Receiver Modules

RECEIVER CONTACTS	RECEIVER MODULES													
	510 160 101	510 160 102	510 160 103	510 160 104	510 160 105	510 160 106	510 160 107	510 160 108	510 160 109	510 160 110	510 160 111	510 160 112	510 160 114	510 160 115
610 102 119													X	X
610 102 133													X	X
610 104 114		X	X	X										
610 104 140		X	X	X										
610 104 141		X	X	X										
610 104 142		X	X	X										
610 110 101			X					X	X		X			X
610 110 104			X					X	X		X			X
610 110 128			X					X	X		X			X
610 110 167			X					X	X		X			X
610 113 131										X				
610 113 132										X				
610 113 144									X					
610 116 112		X	X	X										
610 116 124		X	X	X										
610 116 125		X	X	X										
610 131 108		X	X	X										
610 138 100					X							X		
610 138 116	X	X					X							
610 138 117*					X							X		
610 138 118*					X							X		
610 140 101						X	X				X	X		
610 140 102						X	X				X	X		
610 140 103						X	X				X	X		
610 140 104						X	X				X	X		
610 142 101						X	X				X	X		
610 142 102						X	X				X	X		

** Must be used with 610 138 100*

Cross Reference for Receiver Contacts and Tools

RECEIVER CONTACTS	CRIMP TOOLS AND LOCATORS											EXTRACTION					MISCELLANEOUS									
	910 101 102	910 101 103	910 101 115	910 101 125	910 101 131	910 101 132	910 104 116	910 104 127	910 104 134	910 104 139	910 104 145	910 110 102	910 110 112	910 112 104	910 112 117	910 112 123	910 121 119	910 121 131	910 121 143	910 121 144	910 121 149	910 121 156	910 121 160	910 121 167	910 121 178	910 121 179
610 102 119															X											
610 102 133										X					X											
610 104 114			X											X			X	X	X			X				
610 104 140														X				X				X				
610 104 141			X											X			X	X	X			X				
610 104 142														X				X		X	X	X	X	X		
610 110 101		X						X				X														
610 110 104												X														
610 110 128	X						X					X														
610 110 167		X						X				X														
610 113 131	X								X			X														
610 113 132	X								X			X														
610 113 144																										
610 116 112														X												
610 116 124														X												
610 116 125														X												
610 131 108														X												
610 138 100																										
610 138 116				X									X													
610 138 117																										
610 138 118																										
610 140 101						X										X								X	X
610 140 102					X											X								X	X
610 140 103						X										X								X	X
610 140 104																X								X	X
610 142 101	X										X					X									
610 142 102																X									

* Must be used with 610 138 100

Cross Reference for ITA Contacts and ITA Modules

ITA CONTACTS	ITA MODULES											
	510 161 101	510 161 102	510 161 103	510 161 104	510 161 106	510 161 107	510 161 108	510 161 109	510 161 110	510 161 111	510 161 114	510 161 115
610 102 118											X	X
610 102 132											X	X
610 103 115		X	X	X								
610 103 129		X	X	X								
610 103 130		X	X	X								
610 103 136		X	X	X								
610 103 140		X	X	X								
610 103 150		X	X	X								
610 103 161		X	X	X								
610 110 108			X				X	X		X		X
610 110 113			X				X	X		X		X
610 110 129			X				X	X		X		X
610 110 169			X				X	X		X		X
610 113 133									X			
610 113 134									X			
610 113 145								X				
610 115 124		X	X	X								
610 115 125		X	X	X								
610 115 127		X	X	X								
610 115 128		X	X	X								
610 115 129		X	X	X								
610 115 130		X	X	X								
610 132 106		X	X	X								
610 138 109	X	X				X						
610 138 112	X	X				X						
610 138 115	X	X				X						
610 138 122	X	X				X						
610 141 101					X	X				X		
610 141 102					X	X				X		
610 141 103					X	X				X		
610 141 104					X	X				X		
610 143 101					X	X				X		

Cross Reference for ITA Contacts and Tools

ITA CONTACTS	CRIMP TOOLS AND LOCATORS													EXTRACTION					MISCELLANEOUS									
	910 101 102	910 101 103	910 101 115	910 101 118	910 101 131	910 101 132	910 104 107	910 104 118	910 104 128	910 104 135	910 104 139	910 104 140	910 104 144	910 110 102	910 110 111	910 112 104	910 112 117	910 112 123	910 121 126	910 121 142	910 121 144	910 121 149	910 121 155	910 121 157	910 121 160	910 121 167	910 121 178	910 121 180
610 102 118																	X											
610 102 132											X						X											
610 103 115			X													X			X	X			X	X				
610 103 129																X			X	X			X	X				
610 103 130			X													X			X	X			X	X				
610 103 136				X					X							X			X	X			X	X				
610 103 140																X			X	X	X	X	X	X	X	X		
610 103 150																X			X	X			X	X				
610 103 161			X	X					X							X			X	X			X	X				
610 110 108		X					X							X														
610 110 113														X														
610 110 129	X							X						X														
610 110 169		X					X							X														
610 113 133	X									X				X														
610 113 134	X									X				X														
610 113 145																												
610 115 124																X												
610 115 125																X												
610 115 127																X												
610 115 128																X												
610 115 129																X												
610 115 130																X												
610 132 106																X												
610 138 109		X										X			X													
610 138 112		X										X			X													
610 138 115															X													
610 138 122															X													
610 141 101						X												X									X	X
610 141 102					X													X									X	X
610 141 103						X												X									X	X
610 141 104																		X									X	X
610 143 101	X												X					X										

Part #	Description	Page Number
310 113 456	Strain Relief, iCon, Receiver	24, 25, 34
310 113 460	Replacement Protective Cover, iCon, Receiver	24, 25, 33
310 113 461	Keying Pin Kit, iCon/i1, Receiver and ITA	14, 15, 20, 24, 25, 33, 67
310 113 463	Vertical Hinged Mounting Frame, iCon, 5U, 3 Positions	24, 32
310 113 465	Vertical Hinged Mounting Frame, iCon960, 5U, 2 Positions	67, 70
310 113 466	Cover Plate, iCon960, for Vertical Hinged Mounting Frame	67
310 113 467	Cover Plate, iCon, for Mounting Frame Cutouts, Painted Gray	24, 25
310 113 489	Protective Cover, iCon960, Receiver	67, 71
310 113 491	Fixed Mounting Frame, iCon, 1U, 2 Positions	24, 32
310 113 492	Fixed Mounting Frame, iCon, 4U, 10 Positions	24, 32
310 113 517	Fixed Mounting Frame, i1, 2U, 8 Positions	14, 20
310 113 524	Replacement Protective Cover, i1, Receiver	14, 15, 19
310 113 527	28" Slide Kit, Fits 28"-30" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)	15, 25
310 113 528	30" Slide Kit, Fits 30"-32" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)	15, 25
310 113 529	36" Slide Kit, Fits 34"-38" Deep Racks, Supports 180 lbs. (for slide-mounted receivers without platforms)	15, 25
310 113 531	Strain Relief Plate, i1, Receiver	14, 15, 19
310 113 533	Backshell, i1, Receiver	14, 15
310 113 540	Mounting Plate, iCon 6U, 4 Positions, with Slide Mounting Kit (slide kit required)	25, 34
310 113 546	Cover Plate, i1, for Mounting Frame Cutouts, Painted Gray	14, 15
310 113 547	Mounting Plate, i1, 6U, 4 Positions, with Slide Mounting Kit (slide kit required)	15, 20
310 123 101	Receiver, iCon	24, 25, 26
310 123 102	Receiver, iCon, EMI Shielded	24, 25, 27
310 124 102	Receiver, iCon960, 2 QuadraPaddle Modules, Fully Loaded with Round Posts (510 150 135)	67
310 124 103	Receiver, iCon960, 2 QuadraPaddle Receiver Wire Crimp Modules (510 150 116)	67, 68
310 124 105	Receiver, iCon960, 2 192 Position QuadraPaddle Modules (510 150 115) and 2 96 Position TriPaddle Modules (510 104 136)	67
310 124 112	Receiver, iCon960, 2 QuadraPaddle Modules, Fully Loaded with Twin Female Contacts (510 150 131)	67
310 128 101	Receiver, i1	14, 15, 16
410 112 750	Replacement Protective Cover, iCon, ITA	24, 25, 33
410 112 775	Enclosure, iCon960, 2 Cable Clamps	67, 70
410 112 804	Protective Cover, iCon960, ITA	67, 71
410 112 864	Replacement Protective Cover, i1, ITA	14, 15, 19
410 123 101	ITA, iCon	24, 25, 28
410 123 102	ITA, iCon, EMI Shielded	24, 25, 29
410 123 106	ITA, iCon, with Large Cable Clamp	24, 25, 31
410 123 111	ITA, iCon, with Threaded Coupling Adapter	24, 25, 30
410 124 103	ITA, iCon960, 2 QuadraPaddle Modules (510 151 108), Fully Loaded with Round Posts for PCB Mounting	67
410 124 104	ITA, iCon960, 2 QuadraPaddle Modules (510 151 106), Unloaded for Discrete Wiring	67, 69
410 124 105	ITA, iCon960, 2 192 Position QuadraPaddle Modules (510 151 105) and 2 96 Position TriPaddle Modules (510 108 126)	67
410 128 101	ITA, i1	14, 15, 17
410 128 102	ITA, i1, EMI Shielded	14, 15, 18
510 160 101	Signal Module, Receiver, QuadraPaddle, iCon, 160 Position, for Crimp Contacts	35
510 160 102	QuadraPaddle Signal/Mini Power or Mini Coaxial Module, Receiver, iCon, 100/8 Position	41
510 160 103	TriPaddle Signal/Mini Power or Mini Coaxial Module, Receiver, iCon, 64/8 Position	43
510 160 104	Mini Power or Mini Coaxial Module, Receiver, iCon, 24 Position	37
510 160 105	Signal Module, Receiver, QuadraPaddle, iCon, 160 Position, Fully Loaded with Twin Female Contacts	35
510 160 106	Micro Power or Micro Coaxial Module, Receiver, iCon, 40 Position	38
510 160 107	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 100/15 Position, for Crimp Contacts	42
510 160 108	Signal Module, Receiver, TriPaddle, iCon, 96 Position	36
510 160 109	TriPaddle Signal/Twinaxial Module, Receiver, iCon, 40/4 Position	46
510 160 110	Thermocouple Module, Receiver, iCon, 96 Position	40
510 160 111	TriPaddle Signal / Micro Power or Micro Coaxial Module, Receiver, iCon, 24/30 Position	44
510 160 112	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, Receiver, iCon, 100/15 Position, Loaded with Twin Female Signal	42
510 160 114	Coaxial Module, Receiver, iCon, 20/26 GHz or 75 Ohm HD, 18 Position	39
510 160 115	TriPaddle Signal / 20GHz Coaxial Module, Receiver, iCon, 64/8 Position	45
510 161 101	Signal Module, ITA, QuadraPaddle, iCon, 160 Position	35
510 161 102	QuadraPaddle Signal/Mini Power or Mini Coaxial Module, ITA, iCon, 100/8 Position	41
510 161 103	TriPaddle Signal/Mini Power or Mini Coaxial Module, ITA, iCon, 64/8 Position	43
510 161 104	Mini Power or Mini Coaxial Module, ITA, iCon, 24 Position	37
510 161 106	Micro Power or Micro Coaxial Module, ITA, iCon, 40 Position	38
510 161 107	QuadraPaddle Signal/Micro Power or Micro Coaxial Module, ITA, iCon, 100/15 Position	42
510 161 108	Signal Module, ITA, TriPaddle, iCon, 96 Position	36
510 161 109	TriPaddle Signal/Twinaxial Module, ITA, iCon, 40/4 Position	46
510 161 110	Thermocouple Module, ITA, iCon, 96 Position	40
510 161 111	TriPaddle Signal / Micro Power or Micro Coaxial Module, ITA, iCon, 24/30 Position	44
510 161 114	Coaxial Module, ITA, iCon, 20/26 GHz or 75 Ohm HD, 18 Position	39
510 161 115	TriPaddle Signal / 20GHz Coaxial Module, ITA, iCon, 64/8 Position	45
610 102 118	Coaxial Contact, ITA, 20/26 GHz, T-Flex402, Solder (Only Available in Patchcords)	63
610 102 119	Coaxial Contact, Receiver, 20/26 GHz, T-Flex402, Solder (Only Available in Patchcords)	63
610 102 132	Coaxial Contact, ITA, 75 Ohm, SM59/U, 2GHz, Crimp	62
610 102 133	Coaxial Contact, Receiver, 75 Ohm, SM59/U, 2GHz, Crimp	62

Part #	Description	Page Number
610 103 115	Mini Coaxial Contact, ITA, RG 316	54
610 103 129	Mini Coaxial Contact, ITA, Two 0.025" Square Posts, Wire Wrap	54
610 103 130	Mini Coaxial Contact, ITA, RG 178	54
610 103 136	Mini Coaxial Contact, ITA, 24 AWG	54
610 103 140	Mini Coaxial Contact, ITA, Solder Sleeve, RG316 & RG178	55
610 103 150	Mini Coaxial Contact, ITA, Two 0.025" Round Posts for PCB, 0.075" Spacing	54
610 103 161	Mini Coaxial Contact, ITA, 24 & 26 AWG Twisted Pair	54
610 104 114	Mini Coaxial Contact, Receiver, RG 316	54
610 104 140	Mini Coaxial Contact, Receiver, Two 0.025" Square Posts, Wire Wrap	54
610 104 141	Mini Coaxial Contact, Receiver, RG 178	54
610 104 142	Mini Coaxial Contact, Receiver, Solder Sleeve, RG316 & RG178	55
610 110 101	Signal Contact, Receiver, TriPaddle, 5 Amp, 20-24 AWG, 30µ" Gold, Crimp	50
610 110 104	Signal Contact, Receiver, TriPaddle, 5 Amp, 0.025" Square Post for Wire Wrap, 30µ" Gold	50
610 110 108	Signal Contact, ITA, TriPaddle, 5 Amp, 20-24 AWG, 30µ" Gold, Crimp/Solder	50
610 110 113	Signal Contact, ITA, TriPaddle, 5 Amp, 0.025" Square Post for Wire Wrap, 30µ" Gold	50
610 110 128	Signal Contact, Receiver, TriPaddle, 10 Amp, 14 AWG (max), 50µ" Gold, Crimp/Solder	50
610 110 129	Signal Contact, ITA, TriPaddle, 10 Amp, 14 AWG (max) 30µ" Gold, Crimp/Solder	50
610 110 167	Signal Contact, Receiver, TriPaddle, 5 Amp, 26-28 AWG, 30µ" Gold, Crimp/Solder	50
610 110 169	Signal Contact, ITA, TriPaddle, 5 Amp, 26-28 AWG, 30µ" Gold, Crimp/Solder	50
610 113 131	Thermocouple Contact, Receiver, Chromel	65
610 113 132	Thermocouple Contact, Receiver, Alumel	65
610 113 133	Thermocouple Contact, ITA, Chromel	65
610 113 134	Thermocouple Contact, ITA, Alumel	65
610 113 144	Twinaxial Contact, Receiver	64
610 113 145	Twinaxial Contact, ITA	64
610 115 124	Mini Power Contact, ITA, 8 AWG (max), 50µ" Gold, Solder	53
610 115 125	Mini Power Contact, ITA, 8 AWG (max), 30µ" Gold, Solder	53
610 116 112	Mini Power Contact, Receiver, 8 AWG (max), 50µ" Gold, Solder	53
610 131 108	Mini Pneumatic Contact, Receiver, Hose Barb, 1/8" (4.0mm) ID, Fits Mini Coaxial or Mini Power Modules	57
610 132 106	Mini Pneumatic Contact, ITA, Hose Barb, 1/8" (4.0mm) ID, Fits Mini Coaxial or Mini Power Modules	57
610 138 100	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Twin Female - Replacement Contact	47
610 138 109	Signal Contact, ITA, QuadraPaddle, 5 Amp, 22-24 AWG, Crimp/Solder	47
610 138 112	Signal Contact, ITA, QuadraPaddle, 5 Amp, 26-28 AWG, Crimp/Solder	47
610 138 115	Signal Contact, ITA, QuadraPaddle, 5 Amp, Twin Male, Round Post	47
610 138 116	Signal Contact, Receiver, QuadraPaddle, 5 Amp, 22-28 AWG, Crimp	47
610 138 117	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, 0.025" Round Post	47
610 138 118	Signal Contact, Receiver, QuadraPaddle, 5 Amp, Male Adapter, 0.025" Square Posts, Wire Wrap	47
610 138 122	Signal Contact, ITA, QuadraPaddle, 5 Amp, .025" Square Post for Wire Wrap, with Anti-Rotation	47
610 140 101	Micro Coaxial Contact, Receiver, RG 316, Crimp	59
610 140 102	Micro Coaxial Contact, Receiver, RG 178, Crimp	59
610 140 103	Micro Coaxial Contact, Receiver, RG 179, Crimp	59
610 140 104	Micro Coaxial Contact, Receiver, RG 316 Double Shield, Solder	59
610 141 101	Micro Coaxial Contact, ITA, RG 316, Crimp	59
610 141 102	Micro Coaxial Contact, ITA, RG 178, Crimp	59
610 141 103	Micro Coaxial Contact, ITA, RG 179, Crimp	59
610 141 104	Micro Coaxial Contact, Receiver, RG 316 Double Shield, Solder	59
610 142 101	Micro Power Contact, Receiver, 12-14 AWG, Crimp	58
610 142 102	Micro Power Contact, Receiver, PCB Mount	58
610 143 101	Micro Power Contact, ITA, 12-14 AWG, Crimp	58
7-101 914 000-036	Signal Patchcord, ITA, TriPaddle, 10 Amp, 36", 14 AWG, Single Ended	51
7-101 914 000-072	Signal Patchcord, ITA, TriPaddle, 10 Amp, 72", 14 AWG, Single Ended	51
7-101 914 101-006	Signal Patchcord, ITA, TriPaddle, 10 Amp, 6", 14 AWG, Double Ended Jumpers	51
7-102 914 000-036	Signal Patchcord, Receiver, TriPaddle, 10 Amp, 36", 14 AWG, Single Ended	51
7-102 914 000-072	Signal Patchcord, Receiver, TriPaddle, 10 Amp, 72", 14 AWG, Single Ended	51
7-103 422 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	51
7-103 422 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	51
7-103 422 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 22 AWG Twisted Pair, Double Ended Jumpers	51
7-103 424 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	51
7-103 424 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	51
7-103 424 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 24 AWG Twisted Pair, Double Ended Jumpers	51
7-103 872 596-036	Signal Patchcord, ITA, TriPaddle, 7 Amps, 36", USB 2.0 Wire, to USB Type A Plug	51
7-103 872 596-072	Signal Patchcord, ITA, TriPaddle, 7 Amps, 72", USB 2.0 Wire, to USB Type A Plug	51
7-103 922 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 22 AWG, Single Ended	51
7-103 922 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 22 AWG, Single Ended	51
7-103 922 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 22 AWG, Double Ended Jumpers	51
7-103 924 000-036	Signal Patchcord, ITA, TriPaddle, 5 Amp, 36", 24 AWG, Single Ended	51
7-103 924 000-072	Signal Patchcord, ITA, TriPaddle, 5 Amp, 72", 24 AWG, Single Ended	51
7-103 924 103-006	Signal Patchcord, ITA, TriPaddle, 5 Amp, 6", 24 AWG, Double Ended Jumpers	51
7-104 422 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	51
7-104 422 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	51

Part #	Description	Page Number
7-104 424 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	51
7-104 424 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	51
7-104 872 596-036	Signal Patchcord, Receiver, TriPaddle, 7 Amps, 36", USB 2.0 Wire, to USB Type A Plug	51
7-104 872 596-072	Signal Patchcord, Receiver, TriPaddle, 7 Amps, 72", USB 2.0 Wire, to USB Type A Plug	51
7-104 922 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 22 AWG, Single Ended	51
7-104 922 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 22 AWG, Single Ended	51
7-104 924 000-036	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 36", 24 AWG, Single Ended	51
7-104 924 000-072	Signal Patchcord, Receiver, TriPaddle, 5 Amp, 72", 24 AWG, Single Ended	51
7-105 870 595-036	Signal Patchcord, ITA, TriPaddle, 7 Amps, 36", CAT5e, to RJ45 Plug	51
7-105 870 595-072	Signal Patchcord, ITA, TriPaddle, 7 Amps, 72", CAT5e, to RJ45 Plug	51
7-106 870 595-036	Signal Patchcord, Receiver, TriPaddle, 7 Amps, 36", CAT5e, to RJ45 Plug	51
7-106 870 595-072	Signal Patchcord, Receiver, TriPaddle, 7 Amps, 72", CAT5e, to RJ45 Plug	51
7-121 422 000-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	48
7-121 422 000-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	48
7-121 422 121-006	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 22 AWG Twisted Pair, Double Ended Jumpers	48
7-121 424 000-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	48
7-121 424 000-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	48
7-121 424 121-006	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 24 AWG Twisted Pair, Double Ended Jumpers	48
7-121 872 596-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug	48
7-121 872 596-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug	48
7-121 922 000-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 22 AWG, Single Ended	48
7-121 922 000-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", 22 AWG, Single Ended	48
7-121 922 121-006	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 22 AWG, Double Ended Jumpers	48
7-121 924 000-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", 24 AWG, Single Ended	48
7-121 924 000-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", 24 AWG, Single Ended	48
7-121 924 121-006	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 6", 24 AWG, Double Ended Jumpers	48
7-122 422 000-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 22 AWG Twisted Pair, Single Ended	48
7-122 422 000-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", 22 AWG Twisted Pair, Single Ended	48
7-122 424 000-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 24 AWG Twisted Pair, Single Ended	48
7-122 424 000-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", 24 AWG Twisted Pair, Single Ended	48
7-122 870 595-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug	48
7-122 870 595-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug	48
7-122 872 596-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", USB 2.0 Wire, to USB Type A Plug	48
7-122 872 596-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", USB 2.0 Wire, to USB Type A Plug	48
7-122 922 000-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 22 AWG, Single Ended	48
7-122 922 000-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", 22 AWG, Single Ended	48
7-122 924 000-036	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 36", 24 AWG, Single Ended	48
7-122 924 000-072	Signal Patchcord, Receiver, QuadraPaddle, 5 Amp, 72", 24 AWG, Single Ended	48
7-123 870 595-036	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 36", CAT5e, to RJ45 Plug	48
7-123 870 595-072	Signal Patchcord, ITA, QuadraPaddle, 5 Amp, 72", CAT5e, to RJ45 Plug	48
7-232 912 000-036	Mini Power Patchcord, Receiver, 40 Amp, 36", 12 AWG, White Wire, Single Ended	53
7-232 912 000-072	Mini Power Patchcord, Receiver, 40 Amp, 72", 12 AWG, White Wire, Single Ended	53
7-241 912 000-036	Power Patchcord, ITA, Mini Power, 50u Gold, 36", 12 AWG White, Single Ended	53
7-241 912 000-072	Power Patchcord, ITA, Mini Power, 50u Gold, 72", 12 AWG White, Single Ended	53
7-251 912 000-036	Power Patchcord, ITA, Micro Power, 36", 12 AWG White, Single Ended	58
7-251 912 000-072	Power Patchcord, ITA, Micro Power, 72", 12 AWG White, Single Ended	58
7-252 912 000-036	Power Patchcord, Receiver, Micro Power, 36", 12 AWG White, Single Ended	58
7-252 912 000-072	Power Patchcord, Receiver, Micro Power, 72", 12 AWG White, Single Ended	58
7-331 116 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", RG316, Single Ended	54
7-332 116 000-036	Mini Coaxial Patchcord, Receiver, 50 Ohm, 36", RG316, Single Ended	54
7-333 178 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", RG178, Single Ended	54
7-334 178 000-036	Mini Coaxial Patchcord, Receiver, 50 Ohm, 36", RG178, Single Ended	54
7-335 924 000-036	Mini Coaxial Patchcord, ITA, 50 Ohm, 36", 24, Single Ended	54
7-338 116 000-036	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG316, Single Ended	55
7-338 116 000-072	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 72", RG316, Single Ended	55
7-338 178 000-036	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 36", RG178, Single Ended	55
7-338 178 000-072	Mini Coaxial Solder Sleeve Patchcord, Receiver, 50 Ohm, 72", RG178, Single Ended	55
7-339 116 000-036	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG316, Single Ended	55
7-339 116 000-072	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 72", RG316, Single Ended	55
7-339 178 000-036	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 36", RG178, Single Ended	55
7-339 178 000-072	Mini Coaxial Solder Sleeve Patchcord, ITA, 50 Ohm, 72", RG178, Single Ended	55
7-361 116 000-036	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Tan, Single Ended	60
7-361 116 000-072	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Tan, Single Ended	60
7-362 116 000-036	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG316 Tan, Single Ended	60
7-362 116 000-072	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG316 Tan, Single Ended	60
7-363 178 000-036	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG178BU Tan, Single Ended	60
7-363 178 000-072	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG178BU Tan, Single Ended	60
7-364 178 000-036	Coaxial Patchcord, Receiver, Micro Coaxial, 36", RG178BU Tan, Single Ended	60
7-364 178 000-072	Coaxial Patchcord, Receiver, Micro Coaxial, 36", RG178BU Tan, Single Ended	60
7-365 179 000-036	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG179U Tan, Single Ended	60

Part #	Description	Page Number
7-365 179 000-072	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG179U Tan, Single Ended	60
7-366 179 000-036	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG179U Tan, Single Ended	60
7-366 179 000-072	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG179U Tan, Single Ended	60
7-367 117 000-036	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Double Shield Tan, Single Ended	60
7-367 117 000-072	Coaxial Patchcord, ITA, Micro Coaxial, 36", RG316 Double Shield Tan, Single Ended	60
7-368 117 000-036	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG316 Double Shield Tan, Single Ended	60
7-368 117 000-072	Coaxial Patchcord, Receiver, Micro Coaxial, 36" RG316 Double Shield Tan, Single Ended	60
7-387 102 000-036	20/26 GHz Coaxial Patchcord, ITA, 50 Ohm, 36", TFlex 402, Single Ended	63
7-387 102 000-072	20/26 GHz Coaxial Patchcord, ITA, 50 Ohm, 72", TFlex 402, Single Ended	63
7-388 102 000-036	20/26 GHz Coaxial Patchcord, Receiver, 50 Ohm, 36", TFlex 402, Single Ended	63
7-388 102 000-072	20/26 GHz Coaxial Patchcord, Receiver, 50 Ohm, 72", TFlex 402, Single Ended	63
7-401 423 000-036	Twinaxial Patchcord, ITA, 30 Amp, 36", 22 AWG Shielded Twisted Pair, Single Ended	64
7-401 423 000-072	Twinaxial Patchcord, ITA, 30 Amp, 72", 22 AWG Shielded Twisted Pair, Single Ended	64
7-402 423 000-036	Twinaxial Patchcord, Receiver, 30 Amp, 36", 22 AWG Shielded Twisted Pair, Single Ended	64
7-402 423 000-072	Twinaxial Patchcord, Receiver, 30 Amp, 72", 22 AWG Shielded Twisted Pair, Single Ended	64
7-409 803 000-036	Thermocouple Patchcord, ITA, 36", 20 AWG, Chromel and Alumel, Single Ended	65
7-409 803 000-072	Thermocouple Patchcord, ITA, 72", 20 AWG, Chromel and Alumel, Single Ended	65
7-410 803 000-036	Thermocouple Patchcord, Receiver, 36", 20 AWG, Chromel and Alumel, Single Ended	65
7-410 803 000-072	Thermocouple Patchcord, Receiver, 72", 20 AWG, Chromel and Alumel, Single Ended	65
7-411 873 000-036	Coaxial Patchcord, ITA, 75 Ohm, 36", SM59/U, Single Ended	62
7-411 873 000-072	Coaxial Patchcord, ITA, 75 Ohm, 72", SM59/U, Single Ended	62
7-412 873 000-036	Coaxial Patchcord, Receiver, 75 Ohm, 36", SM59/U, Single Ended	62
7-412 873 000-072	Coaxial Patchcord, Receiver, 75 Ohm, 72", SM59/U, Single Ended	62
910 101 102	Tool, Crimp, 10 Amp TriPaddle, Thermocouple and Micro Power Contacts, Receiver and ITA, Locator Required	52, 61, 65
910 101 103	Tool, Crimp, QuadraPaddle and TriPaddle Contacts, Locator Required	49, 52
910 101 115	Tool, Crimp, Coaxial Contacts	56
910 101 118	Tool, Crimp, Coaxial Contacts, ITA, 24 AWG Wire	56
910 101 125	Tool, Crimp, QuadraPaddle, Receiver	49
910 101 131	Tool, Crimp, Micro Coaxial RG178, Receiver and ITA	61
910 101 132	Tool, Crimp, Micro Coaxial, RG179 & RG316, Receiver and ITA	61
910 104 107	Tool, Locator, TriPaddle ITA (610 110 108 and 610 110 169)	52
910 104 116	Tool, Locator, TriPaddle, Receiver	52
910 104 118	Tool, Locator, TriPaddle, ITA	52
910 104 127	Tool, Locator, TriPaddle Receiver (610 110 101 and 610 110 167)	52
910 104 128	Tool, Locator, Coaxial Contacts, 24 AWG Wire	56
910 104 134	Tool, Locator, Thermocouple, Receiver	65
910 104 135	Tool, Locator, Thermocouple, ITA	65
910 104 139	Tool, Hex Crimp for Outer Shield, 75 Ohm Coaxial Contacts, Receiver and ITA	62
910 104 140	Tool, Locator, QuadraPaddle, ITA	49
910 104 144	Tool, Locator, Micro Power, ITA	61
910 104 145	Tool, Locator, Micro Power, Receiver	61
910 110 102	Tool, Extraction, TriPaddle and Thermocouple, Receiver and ITA	52, 65
910 110 111	Tool, Extraction, QuadraPaddle, ITA	49
910 110 112	Tool, Extraction, QuadraPaddle, Receiver	49
910 112 104	Tool, Extraction, Mini Power/Mini Coaxial Contacts, Receiver and ITA	53, 56, 57
910 112 117	Tool, Extraction, 75 Ohm and 20/26 GHz Coaxial Contacts, Receiver and ITA	62, 63
910 112 123	Tool, Extraction, Micro Power/Micro Coaxial Contacts	61
910 113 106	Tool, Insertion, QuadraPaddle ITA Wire-Wrap Contact	49
910 121 119	Tool, Center Conductor Forming, Mini Coaxial, Receiver (used before assembly)	56
910 121 126	Tool, Outer Shield Conductor Forming (ITA-forms or closes shield)	56
910 121 131	Tool, Weight Gage Kit, Mini Coaxial, Receiver	56
910 121 142	Tool, Outer Shield Conductor Expanding, Mini Coaxial, ITA	56
910 121 143	Tool, Center Conductor Enlarging, Mini Coaxial, Receiver	56
910 121 144	Tool, Solder Kit, Mini Coaxial Contacts with Solder Sleeves (Includes Raychem Holding Fixture AD-1319)	56
910 121 149	Tool, Adapter for Raychem Holding Fixture (AD-1319-9)	56
910 121 155	Tool, Weight Gage Kit, Mini Coaxial, ITA	56
910 121 156	Tool, Inspection Depth Gage, Mini Coaxial, Receiver	56
910 121 157	Tool, Inspection Depth Gage, Mini Coaxial, ITA	56
910 121 160	Tool, Steinel Heat Gun with Nozzle – 110V	56
910 121 167	Tool, Steinel Heat Gun with Nozzle – 220V	56
910 121 178	Tool, Soldering Fixture, Micro Coaxial, Receiver and ITA	61
910 121 179	Tool, Inspection Depth Gage, Micro Coaxial, Receiver	61
910 121 180	Tool, Inspection Depth Gage, Micro Coaxial, ITA	61

Standard Units of Measurement
[mm]
inches

Tolerance: .xxx = ± .005
.xx = ± .010

Technical information in this document is subject to change without notice.

© 2009 Virginia Panel Corporation. All rights reserved.

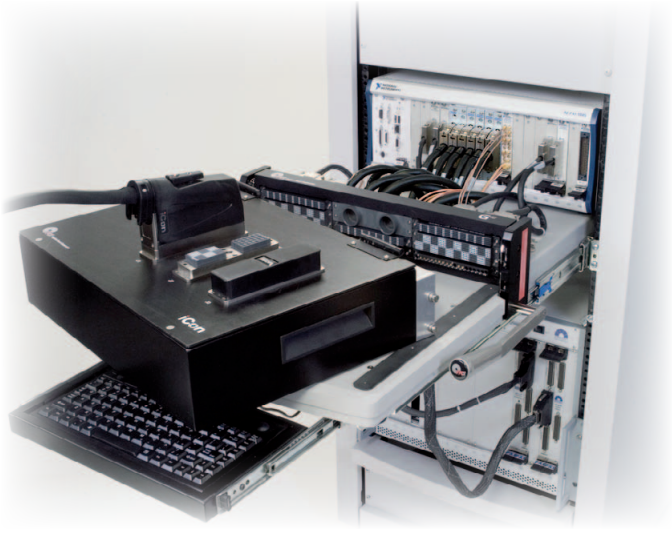
10/28/09

Design your own Patchcords

with our new Patchcord Designer. This design tool allows you to instantly engineer patchcords to your specifications, choosing from over 100 different wires and contacts. New choices are added regularly. An image of your configuration instantly appears as your selections are made, and a detailed drawing is created for you containing a complete Bill of Material list. Go to: **www.vpc.com/patchcorddesigner**

PATCHCORD designer
Step 1: Select the 1st Side Contact or the Wire
1st Side Contact
Or The Wire
View By: Description Part number
--- VPC Contacts ---
Signal, Receiver, QuadraPaddle
Signal, ITA, QuadraPaddle
Signal, Receiver, TriPaddle
Signal, ITA, TriPaddle
Mini Power, Receiver, 50u Gold
Mini Power, ITA, 30u Gold
Mini Power, ITA, 50u Gold
Micro Power, Receiver
--- Standard Wire ---
8 AWG White
10 AWG White
12 AWG White
14 AWG White
16 AWG White
18 AWG White
20 AWG White
22 AWG White
Filter By Type: All
Go To Step 2: Select the 1st Side Contact, then 2nd Side Contact
Go To Step 3: Select length and quantity
Standard wire typically provides the best price and fastest delivery.
If you don't see what you need, Email an Application Engineer for assistance.
Coaxial, Receiver (50 Ohm, 26 GHz)
TFlex 402 Blue (50 Ohm, 26 GHz)
SMA Plug (50 Ohm, 26 GHz)
[0.91m]
36in.
Part Number: 7- 388 102 531 - 036
Visualization
ISO 9001:2008 Certified Copyright © Virginia Panel Corporation, 1999-2009 All rights reserved. Terms/Legal

To instantly design patchcords online, use our
PATCHCORD designer
vpc.com/patchcorddesigner



Mass InterConnect Solutions

VPC has your complete Mass InterConnect Solution. Refer to our Mass InterConnect Solutions Product Catalog, or visit our website at **www.vpc.com**. More detailed information about each product is available online, such as product drawings, specifications, tech tips, and user's manuals. Our advanced search tool can help you find the products that best suit your needs that may not be available in the catalog. You can also find downloadable literature, such as catalogs, brochures and flyers.

Virginia Panel Corporation

NORTH AND SOUTH AMERICA
1400 New Hope Road
Waynesboro, VA 22980
United States
Phone: +1 540 932 3300
Email: info@vpc.com

EUROPE, MIDDLE EAST, AFRICA
Karlstrasse 32
72666 Neckartailfingen
Germany
Phone: +49 15 227554545
Email: info.emea@vpc.com

ASIA, AUSTRALIA
PO Box 86098
140 Gillies Avenue
Hung Hom, Kowloon
Hong Kong
Phone: +852 2356 8635
Email: info.asia@vpc.com